

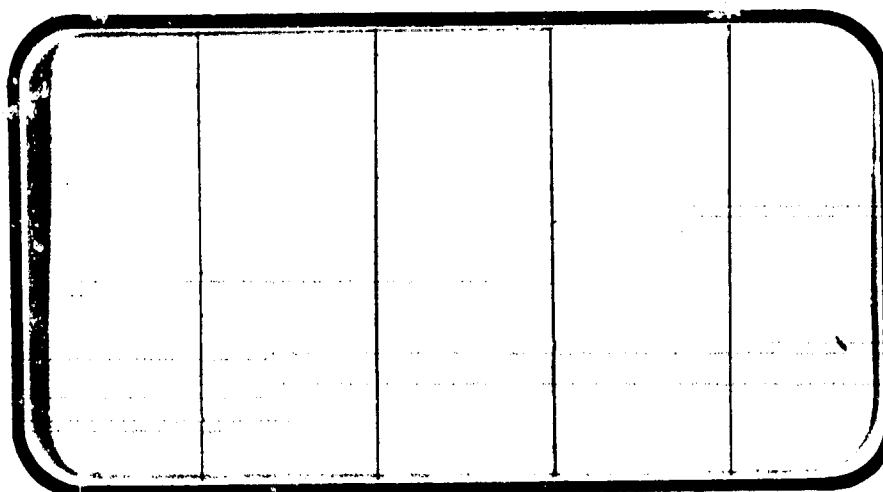


# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

(NASA-CP-147602) TERMINAL AREA ENERGY  
MANAGEMENT REGIME INVESTIGATIONS UTILIZING  
AN 0.030-SCALE MODEL (47-0) OF THE SPACE  
SHUTTLE VEHICLE ORBITER CONFIGURATION  
140A/B/C/R IN THE AMES RESEARCH CENTER 11 X G3/16

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HC #18,25

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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER  
CORPORATION

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TERMINAL AREA ENERGY MANAGEMENT  
REGIME INVESTIGATIONS UTILIZING AN 0.030-SCALE  
MODEL (47-0) OF THE SPACE SHUTTLE VEHICLE  
ORBITER CONFIGURATION 140A/B/C/R IN THE  
AMES RESEARCH CENTER 11 X 11 FOOT  
TRANSONIC WIND TUNNEL (0A148)

by

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Prepared under NASA Contract Number NAS9-13247

by

Data Management Services  
Chrysler Corporation Space Division  
New Orleans, La. 70189

for

Engineering Analysis Division  
Johnson Space Center  
National Aeronautics and Space Administration  
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 11-073  
NASA Series Number: OA148  
Model Number: 47-0  
Test Dates: May 5 through May 17, 1975  
Occupancy Hours: 220

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ABSTRACT

This report documents data obtained in wind tunnel test OA148.

The objectives of the test series were to:

- 1) obtain pressure distributions, forces and moments over the vehicle  
Orbiter in the terminal area energy management (TAEM) and approach phases  
of flight.
- 2) obtain elevon and rudder hinge moments in the TAEM and approach  
phases of flight.
- 3) obtain body flap and elevon loads for verification of loads  
balancing with integrated pressure distributions.
- 4) obtain pressure distributions near the short OMS pods in the high  
subsonic, transonic and low supersonic Mach number regimes.

Testing was conducted over a Mach number range from 0.6 to 1.4 with  
Reynolds number variations from  $4.57 \times 10^6$  to  $2.74 \times 10^6$  per foot. Model  
angle-of-attack was varied from -4 to 16 degrees and angles of side slip  
ranged from -8 to 8 degrees.



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7	ORBITER FUSELAGE BODY FLAP DEFLECTION 0 DEGREES	ALPHA, MACH PHI, BETA	D	763-864
8	ORBITER FUSELAGE BODY FLAP DEFLECTION 16.3 DEGREES	ALPHA, MACH PHI, BETA	D	865-966
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13	VERTICAL TAIL SPEEDBRAKE DEFLECTION 0 DEGREES	ALPHA, MACH Z/BV, BETA	F	1307-1374

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FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGES
14	VERTICAL TAIL SPEEDBRAKE DEFLECTION 35 DEGREES	ALPHA, MACH Z/BV, BETA	F	1375-1442

## PLOTTED COEFFICIENTS SCHEDULE:

- A) CY, CYN and CBL versus BETA
- B) CN, CA and CLM versus ALPHA
- C) CHEO, CHEI, CHETOT and CHBF versus ALPHA
- D) CP versus X/LB
- E) CP versus X/CW
- F) CP versus X/CV

# NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$A_b$	AB	total Orbiter base area, ft <sup>2</sup>
$A_i$	AI	area over which $P_i$ acts, ft <sup>2</sup>
$A_{sb}$	ASB	speed brake base area, ft <sup>2</sup>
$b$	BREF, BW	Orbiter wing span, in
$b_v$	BV	vertical tail reference span, in
$C_{A_u}$	CAU	Orbiter uncorrected axial force coefficient
$C_A$	CA	Orbiter axial force coefficient with sting cavity adjusted to average base pressure
$C_{AF}$	CAF	Orbiter forebody axial force coefficient.
$C_{A_{sc}}$	CASC	Orbiter sting cavity axial force coefficient.
$C_{D_u}$	CDU	Orbiter uncorrected drag coefficient
$C_{h_{bf}}$	CHBF	body flap hinge moment coefficient, about hinge line $X_0 = 1532.0$
$C_{h_{ei}}$	CHEI	inner elevon hinge moment coefficient, about hinge line $X_0 = 1387.0$
$C_{h_{eo}}$	CHEO	outer elevon hinge moment coefficient, about hinge line $X_0 = 1387.0$
$C_{h_{eTOT}}$	CHETOT	total right elevon hinge moment coefficient
$C_{L_u}$	CLU	Orbiter uncorrected lift coefficient
$C_l$	CBL	Orbiter rolling moment coefficient, body axis system

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$C_m$	CLM	Orbiter pitching moment coefficient with sting cavity adjusted to average base pressure, referenced to Orbiter MRC.
$C_{m_u}$	CLMU	Orbiter uncorrected pitching moment coefficient
$C_{m_F}$	CLMF	Orbiter forebody pitching moment coefficient referenced to orbiter MRC.
$C_{m_{sc}}$	CLMSC	Orbiter sting cavity pitching moment coefficient, referenced to Orbiter MRC
$C_{N_u}$	CNU	Orbiter uncorrected normal force coefficient
$C_N$	CN	Orbiter normal force coefficient with sting cavity adjusted to average base pressure
$C_{N_F}$	CNF	Orbiter forebody normal force coefficient
$C_{N_{sc}}$	CNSC	Orbiter sting cavity normal force coefficient
$C_n$	CYN	Orbiter yawing moment coefficient, body axis system
$C_{p_i}$	CPi	surface tap pressure coefficient, port i, $(P_i - P_\infty)/q$
$C_y$	CY	Orbiter side force coefficient
$C_{[X][Y]}$	$C_{[X][Y]}$	base area force and moment coefficients. The first subscript (post fix) designates the type of coefficient, the second the pressure tap and it's associated area. The symbolic vectors [X] and [Y] are defined below.
<u>[X]=</u>		
A	A	axial force
N	N	normal force
Y	Y	side force
m	LM	pitching moment
n	YN	yawing moment
l	BL	rolling moment

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
[Y]-		
1,2,3 4,5,6 sc bf	1,2,3 4,5,6 SC BF	areas associated with pressure taps 1 through 6 see figure 2b sting cavity area upper body flap area
$l_b$	LB	Orbiter reference body length, IML nose to $X_0 = 1528.3$ , in.
$\lambda_{REF}$	LREF	longitudinal reference length, Orbiter mean aerodynamic chord, in
	LU/DU	uncorrected lift to drag ratio, CLU/CDU
M	MACH	freestream Mach number
$\phi$	PHI	angular cylindrical coordinate position around Orbiter body - deg.
$P_i$	Pi	pressure at surface tap i, PSF
$P_\infty$	P	freestream static pressure, PSF
$P_t$	PT	freestream total pressure, PSF
q	Q	freestream dynamic pressure, PSF
	RN/L	unit Reynolds number, million per foot
S	SREF	wing reference area, ft <sup>2</sup>
$T_t$	TTR	freestream total temperature, °R
$X_{cp}$	XCP/L	center of pressure location referred to $l_b$
$X_0/L_0$	X/LB	longitudinal location of body surface, fraction of body length

# NOMENCLATURE (Concluded)

Symbol	Plot Symbol	Definition
X/C	X/CW	chordwise location on wing surface, fraction of local chord
X/C <sub>v</sub>	X/CV	chordwise location on vertical tail, fraction of local chord
n <sub>v</sub>	Z/BV	spanwise location on vertical tail, fraction of vertical tail span
n	2Y/BW	spanwise location on wing, fraction of semi span
X <sub>mrp</sub>	XMRP	longitudinal location of moment reference point
X <sub>T</sub>	XT	longitudinal moment transfer distance from Orbiter balance center to Orbiter MRC, in
Y <sub>mrp</sub>	YMRP	lateral location of moment reference point
Z <sub>T</sub>	ZT	vertical moment transfer distance from Orbiter balance center to Orbiter MRC, in
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
δ <sub>bf</sub>	BDFLAP	body flap deflection, degrees
δ <sub>eL</sub>	ELVN-L, L-ELVN	left elevon deflection, degrees
δ <sub>eR</sub>	ELVN-R, R-ELVN	right elevon deflection, degrees
δ <sub>r</sub>	RUDDER	rudder deflection, degrees
δ <sub>sb</sub>	SPDBRK	speed brake deflection, degrees
Z <sub>mrp</sub>	ZMRP	vertical location of moment reference point
	\$\$	mask character used to indicate all possible values for this test 01 through 85



# REMARKS

During the course of the test it was necessary to replumb the scani-  
valves. The resultant time loss necessitated deleting the priority 4 runs  
which incorporated the use of the metric vertical tail.

Data obtained from pressure taps 184, 296 and 347 are suspect due to  
slow leaks noticed while leak checking individual model pressure taps.

Body flap hinge moment data for datasets RE8001 + RE8005 have  
a -15% drift while datasets RE8006 and RE8007 have a -10% drift due to data  
recording system errors. System checks during the remainder of the test  
indicate a system error of less than 4% for body flap hinge moment data.

Rolling moment data has an approximate -.003 bias in the coefficient.  
The reason for this was not determined, but possible sources are fabrication  
tolerances and/or differential stiffness of the left and right elevon  
panels.

Distortion of the instrumented elevon shaft appears to have occurred  
around run 310 due to model assembly difficulties and the maximum loads en-  
countered at these test conditions. A comparison of measured elevon de-  
flection before and after the test with the nominal setting is presented  
below:

<u>Elevon Panel</u>	<u>Nominal</u>	<u>Pre-Test</u>	<u>Post-Test</u>
Inboard right	-10	-9° 36'	-8° 55'
	-4	-3° 34'	-2° 55'
	0	+0° 10'	+1° 02'
	4	+4° 26'	+4° 28'
	10	+10° 32'	+10° 39'
Outboard right	-10	-9° 36'	-8° 15'
	-4	-3° 34'	-2° 20'
	0	+0° 10'	+1° 05'
	4	+4° 26'	+3° 59'
	10	+10° 32'	+10° 18'

\* Inboard only was measured but was the same as outboard panel (see Ref 2)

## CONFIGURATION INVESTIGATED

The Rockwell International model 47-0 Space Shuttle Orbiter Vehicle was utilized in this test series. The model was originally constructed to -140A/B lines, but was modified prior to this test with the addition of the -140C OMS pods, six inch bevelled interpanel elevon gaps and uncovered RCS forward thruster parts. To denote these additions, the additional designations "C" (for -140C OMS pods) and "R" (for RCS thrusters) were added, and the slashes deleted for convenience on Table II (designated "-140 ABCR").

In data sets RE8069 to 085 the RCS thruster ports in the nose were filled reverting the configuration to -140A/B/C modified with body B<sub>26</sub>.

The following nomenclature denotes the model components:

<u>Component</u>	<u>Description</u>
B <sub>26</sub>	140A/B fuselage (VL70-000140A, VL70000140B)
B <sub>70</sub>	140A/B fuselage (VL70-000140A, VL70-000145, VL70-000140B, VL70-000143A, VL70-000139) with RCS thruster parts (VL70-08501, VL70-08502, VL70-08296)
C <sub>9</sub>	140A/B basic canopy (VL70-000140A, VL70-000143A)
E <sub>44</sub>	140A/B elevons (VL70-000200, VL70-006089, VL70-006092) with six inch bevelled interpanel gaps, no flipper door
F <sub>9</sub>	140A/B body flap (VL70-000140B, VL70-000200)
M <sub>16</sub>	OMS-RCS pods for 140C Orbiter
N <sub>28</sub>	OMS basic nozzles
R <sub>5</sub>	basic Orbiter rudder (VL70-000146A, VL70-000095)
V <sub>8</sub>	basic Orbiter vertical tail (VL70-000140A, VL70-000146A)
W <sub>116</sub>	basic 140A/B wing (VL70-000140B, VL70-000200)

# CONFIGURATIONS INVESTIGATED (Concluded)

Designated configurations are:

-140ABCR  $\equiv$  B<sub>70</sub> C<sub>9</sub> E<sub>44</sub> F<sub>9</sub> M<sub>16</sub> N<sub>28</sub> R<sub>5</sub> V<sub>8</sub> W<sub>116</sub>

-140 ABC  $\equiv$  B<sub>26</sub> C<sub>9</sub> E<sub>44</sub> F<sub>9</sub> M<sub>16</sub> N<sub>28</sub> R<sub>5</sub> V<sub>8</sub> W<sub>116</sub>

## TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan 11- by 11-Foot Transonic Wind Tunnel is a closed-circuit, air-medium, variable-density facility capable of attaining Mach numbers from 0.6 to 1.4 at Reynolds numbers from  $1.7 \times 10^6/\text{ft}$  to  $9.4 \times 10^6/\text{ft}$ . The test section is 22 feet long, and models are installed on internal strain-gauge balances mounted to sting-type support systems.

Shadowgraph and Schlieren photographic equipment is available, and pressure transducer instrumentation is provided.

Tunnel operating temperature is 580°R. Extended high Reynolds number runs are restricted by power availability.

## DATA REDUCTION

Standard NASA/Ames data reduction equations were used to reduce forces, moments, and pressures to coefficient form. Orbiter main balance force and moment coefficients were computed using the following equations:

<u>Symbol</u>	<u>Orbiter main balance measurement</u>
NF	Normal Force
AF	Axial Force
PM	Pitching Moment
YM	Yawing Moment
SF	Side Force
RM	Rolling Moment

$$C_{A_u} = AF / (q S)$$

$$C_{L_u} = C_{N_u} \cos \alpha - C_{A_u} \sin \alpha$$

$$C_{N_u} = NF / (q S)$$

$$C_{D_u} = C_{N_u} \sin \alpha + C_{A_u} \cos \alpha$$

$$C_Y = SF / (q S)$$

$$C_{m_u} = \frac{PM}{q S c} + \frac{C_A \cdot Z_T}{c} - \frac{C_N \cdot X_T}{c}$$

$$C_l = \frac{RM}{q S b} + \frac{C_Y \cdot Z_T}{b}$$

$$C_n = \frac{YM}{q S b} - \frac{C_Y \cdot X_T}{b}$$

### Moment Transfer Distances

$$X_T = 0.572 \text{ in.}$$

$$Y_T = 0$$

$$Z_T = 0.450 \text{ in.}$$

The Moment Reference Center about which the data was reduced is located at

	<u>Orbiter (Full Scale)</u>
$X_0$	1076.68
$Y_0$	0
$Z_0$	375.00

Balance coefficients were grouped into datasets RE80\$\$.

## DATA REDUCTION (Continued)

Hinge moments and hinge moment coefficients were computed using the following equations:

Elevon hinge moments (inboard and outboard).

$$HM_{eI} = (HM1 - HM2) (M1/D1) + HM1$$

$$HM_{eO} = (HM3 - HM4) (M3/D3) + HM3$$

where

HM<sub>i</sub> = measured moment on strain gage i

D1 = distance between gages 1 and 2, .49335 in.

D3 = distance between gages 3 and 4, .45800 in.

M1 = moment transfer distance for inboard elevon, .93825 in.

M3 = moment transfer distance for outboard elevon, .92250 in.

Elevon hinge moment coefficients

$$\text{Inboard, } C_{HeI} = HM_{eI} / (q S_e c_e)$$

$$\text{Outboard, } C_{HeO} = HM_{eO} / (q S_e c_e)$$

$$\text{Total, } C_{HeTOT} = C_{HeI} + C_{HeO}$$

$S_e$  = elevon reference area, 0.189 ft.<sup>2</sup>

$c_e$  = elevon reference MAC, 2.721 in.

Body flap hinge moment coefficient

$$C_{Hbf} = HM_{bf} / (q S_{bf} c_{bf})$$

HM<sub>bf</sub> = measured body flap hinge moment

$S_{bf}$  = body flap reference area, 0.12834 ft.<sup>2</sup>

## DATA REDUCTION (Continued)

$c_{bf}$  = body flap reference MAC, 2.541 in.

Hinge moment coefficients are part of datasets RE8X\$\$.

Pressure coefficients for all model orifice pressure measurements were computed using this equation:

$$C_{p_i} = (P_i - P_\infty)/q$$

where  $P_i$  = pressure at model orifice  $i$

$P_\infty$  = tunnel static pressure

$q$  = tunnel dynamic pressure

Other data reduction constants include:

$S$  = wing reference area, 2.4210 ft.<sup>2</sup>

$c$  = wing reference chord, 14.2443 in.

$b$  = wing reference span, 28.1004 in.

After the data had been reduced to coefficient form by NASA/AMES, DMS interpolated it to nominal  $\alpha$ 's and  $\beta$ 's. Then 2 types of base and sting cavity area coefficients were calculated. When they are applied 3 types of balance coefficient data exists. These can be distinguished by the last subscript (symbolic name) or postfix (mnemonic name). The key is given below

U ~ uncorrected coefficients.

~ coefficients with sting cavity pressure corrected to base pressure (without a suffix).

F ~ forebody coefficients with the base area pressure corrected to freestream pressure.

### DATA REDUCTION (Continued)

Only the correction coefficients associated with base pressure tapes 1 through 4 were applied to the longitudinal orbiter coefficients.

Figure 2b illustrates the base area associated with each pressure tap. Alphabetic characters bf and sc designate body flap and sting cavity areas, respectively. Base area coefficient names have a numeric character which designates the pressure tap number. Base coefficients for vertical tail areas 5 and 6 were calculated but not applied to the total orbiter coefficients. Base area coefficient values are tabulated in the appendix. A detailed derivation of these coefficients follows. It is concluded by a matrix of base area geometric properties.

The orbiter sting cavity force and moment coefficients were computed as:

$$C_{A_{sc}} = \frac{(C_{p2} - C_{p1}) A_1}{S}$$

$$C_{N_{sc}} = \frac{(C_{p2} - C_{p1}) A_1 \tan 12.55^\circ}{S}$$

$$C_{m_{sc}} = C_{A_{sc}} \frac{Z_t}{c} - C_{N_{sc}} \frac{x_{sc}}{c}$$

The orbiter force and moment coefficients corrected for the difference between balance cavity pressure and orbiter base pressure:

$$C_A = C_{A_u} - C_{A_{sc}}$$

$$C_N = C_{N_u} - C_{N_{sc}}$$

$$C_m = C_{m_u} - C_{m_{sc}}$$

These orbiter coefficients are part of datasets KE80\$\$.



## DATA REDUCTION (Continued)

Orbiter base force and moment coefficients were calculated as follows:

Upper base area

$$C_{N2u} = -(C_{p2} A_{2u} \tan 16^\circ)/S$$

$$C_{A2u} = -(C_{p2} A_{2u})/S$$

$$C_{m2u} = \frac{C_{A2u} Z_{2u}}{c} - \frac{C_{N2u} X_{2u}}{c}$$

Lower base area

$$C_{N2l} = -(C_{p2} A_{2l} \tan 10^\circ)/S$$

$$C_{A2l} = -(C_{p2} A_{2l})/S$$

$$C_{m2l} = C_{A2l} \frac{Z_{2l}}{c} - C_{N2l} \frac{X_{2l}}{c}$$

Total base area,  $A_2$

$$C_{N2} = C_{N2u} + C_{N2l}$$

$$C_{A2} = C_{A2u} + C_{A2l}$$

$$C_{m2} = C_{m2u} + C_{m2l}$$

OMS pod base area,  $A_3$

(This assumes the surface is perpendicular to the orbiter X-axis)

$$C_{A3} = -(C_{p3} A_3)/S$$

$$C_{m3} = C_{A3} \frac{Z_3}{c}$$

OMS pod base area,  $A_4$

(This assumes the surface is perpendicular to the orbiter X-axis)

DATA REDUCTION (Continued)

$$C_{A4} = -(C_{p4} A_4)/S$$

$$C_{m4} = C_{A4} \frac{Z_4}{c}$$

Coefficients for the above areas are grouped into datasets EE8D\$\$.

Upper surface of body flap

$$C_{A_{bf}} = \frac{-C_{p_{bf}} A_{bf}}{S} \sin (\delta_{bf} + 6.88^\circ)$$

$$C_{N_{bf}} = \frac{-C_{p_{bf}} A_{bf}}{S} \cos (\delta_{bf} + 6.88^\circ)$$

$$C_{m_{bf}} = \frac{C_{A_{bf}} Z_{bf}}{c} - \frac{C_{N_{bf}} X_{bf}}{c}$$

where:

$$C_{p_{bf}} = \frac{C_{p200} + C_{p201} + C_{p204} + C_{p205}}{4}$$

The orbiter force and moment coefficients adjusted to free stream pressure (forebody coefficients).

$$C_{A_F} = C_{A_u} - \left( \frac{-C_{p1} A_1}{S} + \sum_{i=2}^4 C_{A_i} + C_{A_{bf}} \right)$$

$$C_{N_F} = C_{N_u} - (C_{N2} + C_{N_{bf}})$$

$$C_{m_F} = C_{m_u} - \left( \sum_{i=2}^4 C_{m_i} + C_{m_{bf}} \right)$$

These orbiter coefficients are part of datasets KE80\$\$.

Vertical tail "undercarriage" area,  $A_5$

Top Segment:

$$C_{N5t} = (C_{p5} A_{5t} \tan 63.75^\circ)/S$$

DATA REDUCTION (Continued)

$$C_{A5t} = - (C_{p5} A_{5t})/S$$

$$C_{m5t} = C_{A5t} \frac{Z_{5t}}{c} - C_{N5t} \frac{X_{5t}}{c}$$

Middle Segment:

$$C_{N5m} = (C_{p5} A_{5m} \tan 26.1426^\circ)/S$$

$$C_{A5m} = - (C_{p5} A_{5m})/S$$

$$C_{m5m} = C_{A5m} \frac{Z_{5m}}{c} - C_{N5m} \frac{X_{5m}}{c}$$

Bottom Segment:

$$C_{N5b} = (C_{p5} A_{5b} \tan 21.94^\circ)/S$$

$$C_{A5b} = - (C_{p5} A_{5b})/S$$

$$C_{m5b} = C_{A5b} \frac{Z_{5b}}{c} - C_{N5b} \frac{X_{5b}}{c}$$

Total area,  $A_5$ :

$$C_{N5} = C_{N5t} + C_{N5m} + C_{N5b}$$

$$C_{A5} = C_{A5t} + C_{A5m} + C_{A5b}$$

$$C_{m5} = C_{m5t} + C_{m5m} + C_{m5b}$$

Vertical Tail base area,  $A_6$ :

Segment above rudder

$$C_{N6u} = (C_{p6} A_{6u} \tan 63.75^\circ)/S$$

$$C_{A6u} = (C_{p6} A_{6u})/S$$

$$C_{m6u} = C_{A6u} \frac{Z_{6u}}{c} - C_{N6u} \frac{X_{6u}}{c}$$

# DATA REDUCTION (Continued)

Rudder/Speed brake base:

$$C_{A6_\lambda} = C_{p6} A_{6_\lambda} [\sin (\theta - 55.1667^\circ) \cos 55.1667^\circ + \cos (\theta - 55.1667^\circ) \sin 55.1667^\circ \cos (\delta r)]/S$$

$$C_{N6_\lambda} = C_{p6} A_{6_\lambda} [\sin (\theta - 55.1667^\circ) \sin 55.1667^\circ - \cos (\theta - 55.1667^\circ) \cos 55.1667^\circ \cos (\delta r)]/S$$

$$C_{Y6_\lambda} = C_{p6} A_{6_\lambda} \cos (\theta - 55.1667^\circ) \sin \delta r/S$$

$$C_{m6_\lambda} = [C_{A6_\lambda} (Z_{6_\lambda}) - C_{N6_\lambda} (X_{6_\lambda})]/c$$

$$C_{\ell 6_\lambda} = [C_{Y6_\lambda} (Z_{6_\lambda})]/b$$

$$C_{n6_\lambda} = -[C_{Y6_\lambda} (X_{6_\lambda})]/b$$

$$\theta = \tan^{-1} \left[ \frac{5.456791 + .573209 \cos \left( \frac{\delta_{SB}}{2} \right)}{3.797715 - .823715 \cos \left( \frac{\delta_{SB}}{2} \right)} \right]$$

$$A_{6_\lambda} = A_{6_\lambda} / \sin \theta$$

Total area,  $A_6$ :

$$C_{A6} = C_{A6u} + C_{A6_\lambda}$$

$$C_{N6} = C_{N6u} + C_{N6_\lambda}$$

$$C_{Y6} = C_{Y6_\lambda}$$

$$C_{m6} = C_{m6u} + C_{m6_\lambda}$$

$$C_{\ell 6} = C_{\ell 6_\lambda}$$

$$C_{n6} = C_{n6_\lambda}$$

Vertical tail area coefficient data are grouped into datasets GE8D\$.

# BASE GEOMETRIC PROPERTIES MATRIX

Description	Sub-script	Area A ~ ft. <sup>2</sup>	Distance between Centroid and MRC	
			vertical Z ~ in.	longitudinal X ~ in.
Sting cavity	sc	0.076699	0.45	12.199
Body flap upper surface	bf	0.128	- 2.64	13.659
Orbiter balance cavity	1	0.076699	0.45	12.199
Orbiter base orifice 2 lower	2l	0.133889	- 1.32	12.617
Orbiter base orifice 2 upper	2u	0.0818055	2.07	12.384
Lower OMS pod	3	0.030472	2.68	NA
Upper OMS pod	4	0.074166	3.63	NA
Vertical tail "undercarriage" bottom	5b	0.003565	4.612	12.395
Vertical tail "undercarriage" middle	5m	0.002610	5.336	14.079
Vertical tail "undercarriage" top	5t	0.000341	5.97	15.185
Vertical tail above rudder	6u	0.000798	12.656	18.482
Base area of speed brake	6l	Varies with speed brake deflection		

NOTES: Sting cavity and Orbiter balance cavity are synonymous.

NA - not applicable.

DATA REDUCTION (Continued)

# DATA REDUCTION (Continued)

$\delta_{sb}$	$A_{6L}$ ft. <sup>2</sup>
0	0.0066036
25	0.0456000
35	0.0621000
55	0.0950800
85	0.1551400

$$X_{6L} = 15.045 + 1.442277 [1 - \cos (\delta_{sb}/2)]$$

$$Z_{6L} = 9.755 + 0.501827 [1 - \cos (\delta_{sb}/2)]$$

Standard DMS loads cycle test procedures were used to process the 0A148 pressure data. First numerous pressure distribution plots were released. Analysis of these produced bad pressure data list. This list is reproduced below:

# DATA REDUCTION (Continued)

## OA148 Bad Pressure Data

Component	Dataset No.	Tap No.	B	α
Fuselage (B)	1	143	4	-4
	1	148	4	-4
	1	150	4	-4
	1	152	4	-4
	1	186	4	-4
	1	187	4	-4
	1	189	4	-4
	1	191	4	-4
	1	193	4	-4
Lower Wing (L)	1 → 7	231	ALL	ALL
	1 → 85	290	ALL	ALL
	1	316	4	-4
	1	317	4	-4
	1	337	4	-4
	1	338	4	-4
	1	358	4	-4
	1	378	4	-4
	1	379	4	-4
	1	398	4	-4
Upper Wing (U)	1 → 7	247	ALL	ALL
	1	357	4	-4
Body Flap (F)	24	205	-4	12
Speed Brake (K)	1 → 85	822	ALL	ALL
Vertical Tail (V)	8	443	ALL	ALL
	ALL	1444	ALL	ALL
	79	1453	-4	-4
	79	1454	-4	-4

Note: Wind tunnel pressure data tabulated in the appendix have the original bad data values.

## DATA REDUCTION (Continued)

These points were eliminated from further processing. The remaining data were interpolated to nominal alpha and beta values. Processing was completed with the release of a magnetic tape containing the final interpolated pressure coefficients.

This report contains plots and tabular listings for both force and pressure data. Plotted force data illustrates lateral-directional, longitudinal and hinge moment characteristics of the configuration tested. Plotted pressure data illustrates the effect of several control deflections and attitude changes on local pressure distributions. The multiple volume appendix contains a tabulated listing of the basic force and pressure data. Listing of the interpolated base area coefficients is also included. The plotted and tabulated data are arranged in the following manner:

VOLUME NO.	CONTENTS
1	Force data plots showing lateral-directional longitudinal and hinge moment characteristics.
2	Plots illustrating the effect of control surface deflections on fuselage, wing and vertical tail pressure distributions.



# DATA REDUCTION (Concluded)

VOLUME  
NO.

## CONTENTS

3

### Tabulated Force Data

<u>Dataset</u>	<u>Data type</u>
RE80\$\$	source balance coefficients
RE8X\$\$	source hinge moment coefficients
RE8Y\$\$	source base pressure coefficients
KE80\$\$	interpolated balance coefficients adjusted for cavity pressure and forebody coefficients
EE8D\$\$ FE8D\$\$	interpolated base and cavity area coefficients
GE8D\$\$	interpolated vertical tail base area coefficients

### Tabulated Pressure Data

	<u>Component</u>	<u>Fourth Character*</u>	<u>Page</u>
4, 5	orbiter fuselage	B	1
6,7,8	lower wing	L	1271
9,10,11	upper wing	U	3147
12	upper body flap	F	5405
12	lower body flap	G	5774
13	speed brake	K	6143
13	vertical tail	V	6547

\* The fourth character in each dataset identifier (i.e., XE8BXX, B for Fuselage) represents the individual component.

#### REFERENCES

1. SD75-SH-0106, "Pretest Information for OA148 of the 0.03-Scale 47-0 Pressure Loads Space Shuttle Model in the 11 x 11 Foot Leg of the NASA/ARC Unitary Plan Wind Tunnel," April 18, 1975.
2. MG-75-07-11, Rockwell International Corporation Internal Letter: "Model design Dimensional Varification Task 36: Elevon Deflection Angle Check of the 0.03-Scale SSV Model 47-0 (140A/B Configuration)". SAS/WT0/75-283, July 29, 1975.

### TABLE I

[illegible]

### TABLE II.

## TABLE II.

**NASA-MSFC-MAF**

TABLE II - Continued.

TEST: OA 148		DATA SET RUN NUMBER COLLATION SUMMARY												DATE: POST TEST	
DATA SET IDENTIFIER	CONFIGURATION	$\alpha$												MACH NUMBERS	
		$\alpha/\beta$	$\delta/\epsilon$	$\zeta/\eta$	$\theta/\iota$	$\kappa/\lambda$	$\mu/\nu$	$\xi/\omicron$	$\pi/\rho$	$\sigma/\tau$	$\upsilon/\phi$	$\chi/\psi$	$\omega/1$		
RE8013	-140 ABCR	B D	0	35	0	0	0	97	98	99	100	101	102	1.4	
014		A D						103	104	105	106	107		1.25	
015		A D						108	109	110	111	112		1.1	
016		A D						113	114	115	116	117		0.9	
017		A C						118	119	120	121	122		0.6	
018	-140 ABCR	B D	0	0	-117	0	0	123	124	125	126	127	128	1.4	
019		A D						131	129	130	132	133		1.25	
020		A D						134	135	136	137	138		1.1	
021		A D						139	140	141	142	143		0.9	
022		A C						144	145	146	147	148		0.6	
023	-140 ABCR	B D	0	0	0	0	0	149	150	151	152	153	154	1.4	
024		A D						155	156	157	158	159		1.25	
025		A D						160	161	162	163	164		1.1	
026		A D						165	166	167	168	169		0.9	
027		A C						170	171	172	173	174		0.6	
TEST RUN NUMBER															
1	7	13	19	25	31	37	43	49	55	61	67	73	79		
COEFFICIENTS															
IDVAR (1) IEVAR (2) NDV															
OR $\beta$															
SCHEDULES															
NASA-MSFC-NAF															

DATE: POST TEST

**NASA-NSEC-MAF**

**TABLE II. - Continued.**

TEST: OA 148		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: POST TEST	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER										MACH NUMBERS	
		1	2	3	4	5	6	7	8	9	10	11	12
043	140 ABCZ	A	D	C	D	C	D	C	D	C	D	C	0.9
044		A	C										0.6
045	140 ABCZ	A	D	C	D	C	D	C	D	C	D	C	0.9
046		A	C										0.6
047	140 ABCZ	B	D	C	D	C	D	C	D	C	D	C	1.4
048		A	D										1.25
049		A	D										1.1
050		A	D										0.9
051		A	C										0.6
052	140 ABCZ	B	D	C	D	C	D	C	D	C	D	C	1.4
053		A	D										1.25
054		A	D										1.1
055		A	D										0.9
056		A	C										0.6

α OR β SCHEDULES

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

TABLE II. - Continued.

TEST: OA 148		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: Post Test	
DATA SET IDENTIFIER	CONFIGURATION	TEST RUN NUMBER										MACH NUMBERS	
		Δ	ΔR	ΔSB	ΔSF	ΔGL	ΔCR	-A	0	4	8	12	16
REB057	-140 ABCR	B D	10	55	16.3	4	-4	325	326	327	328	329	330
058		A D						331	332	333	334	335	
059		A D						336	337	338	339	340	
060		A D						340	342	343	344	345	
061		A C						346	347	348	349	350	
062	-140 ABCR	B D	+5	55	16.3	-4	-4	351	352	353	354	355	356
063		A D						357	358	359	360	361	
064		A D						362	363	364	365	366	
065		A D						367	368	369	370	371	
066		A C						372	373	374	375	376	
067	-140 ABCR	A D	0	55	22.5	-4	-4	377	378	379	380	381	
068		A C						382	383	384	385	386	
069	-140 ABC	A D	0	55	22.5	-10	-10	387	388	389	390	391	
070		A C						392	393	394	395	396	
		7	13	19	25	31	37	43	49	55	61	67	73
		COEFFICIENTS											
		α OR β SCHEDULES											
		IDVAR (1) IDVAR (2) NDV											

NASA-MSC-MAF



TABLE II. - Concluded.

TEST: 0A148		DATA SET RUN NUMBER COLLATION SUMMARY												DATE: POST TEST	
DATA SET IDENTIFIER	CONFIGURATION	X												MACH NUMBERS	
		82	85	86	87	88	89	90	91	92	93	94	95	TEST RUN NUMBER	
071	-140 ABC	B	D	-5	55	16.3	-10	-10	397	398	399	400	401	402	1.4
072		A	D						403	404	405	406	407		1.25
073		A	D						408	409	410	411	412		1.1
074		A	D						413	414	415	416	417		0.9
075		A	C						418	419	420	421	422		0.6
076	-140 ABC	B	D	10	0	-11.7	+10	-10	423	424	425	426	427	428	1.4
077		A	D						429	430	431	432	433		1.25
078		A	D						434	435	436	437	438		1.1
079		A	D						439	440	441	442	443		0.9
080		A	C						444	445	446	447	448		0.6
081	-140 ABC	B	E	10	0	-11.7	-10	+10	449	450	451	452	453	454	1.4
082		A	E						455	456	457	458	459		1.25
083		A	E						460	461	462	463	464		1.1
084		A	F						465	466	467	468	469		0.9
085		A	O						470	471	472	473	474		0.6

COEFFICIENTS

$$F_P = 0.0 \quad \alpha = -4.0816$$

SCHEDULES

$$-4.040 \quad \alpha = 4.12$$

NDV

$$F_P = 0.0 \quad \alpha = -4.0816$$

$$-4.040 \quad \alpha = 4.12$$

NASA-MSC-MAF

TABLE III  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>26</sub>

GENERAL DESCRIPTION : Configuration 140A/B orbiter fuselage

NOTE: B<sub>26</sub> is identical to B<sub>24</sub>, except underside of fuselage has been  
refaired to accept W<sub>116</sub>.

MODEL SCALE: 0.030 MODEL DRAWING: SS-A00147, Release 12

DRAWING NUMBER : VL70-000143B, -000200, -000205, -006089, -000145,  
VL70-000140A, -000140B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OML: Fwd Sta. X <sub>0</sub> =235), In.	1293.3	38.799
Length (IML: Fwd Sta X =238), In.	1290.3	38.709
Max Width (@ X <sub>0</sub> = 1528.3), In.	264.0	7.920
Max Depth (@ X <sub>0</sub> = 1464), In.	250.0	7.500
Fineness Ratio	0.264	0.264
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.88	0.3068
Planform		
Wetted		
Base		

TABLE III (Continued)

MODEL COMPONENT : BODY - B<sub>70</sub>

GENERAL DESCRIPTION : Configuration 140A/B orbiter fuselage with forward fuselage RCS thruster ports, otherwise B<sub>70</sub> is identical to B<sub>26</sub>.

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140A, -000140B, -000143B, -000145, -000200, VL70-000205, -000208, -008501, -008502, -008296

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OML: Fwd Sta X <sub>0</sub> =235), In.	1293.3	38.799
Length (IML: Fwd Sta X <sub>0</sub> =238), In.	1290.3	38.709
Max Width (@ X <sub>0</sub> = 1528.3), In.	264.0	7.920
Max Depth (@ X <sub>0</sub> = 1464), In.	250.0	7.500
Fineness Ratio	0.264	0.264
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.88	0.3068
Planform		
Wetted		
Base		

TABLE III (Cont'd)

MODEL COMPONENT : CANOPY - C<sub>9</sub>

GENERAL DESCRIPTION : Configuration 3A. Canopy used with fuselage  
B<sub>26</sub>.

MODEL SCALE: 0.030 MODEL DWG: SS-A00147, Release 12

DRAWING NUMBER : VL70-000143A

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_0 = 434.643$ to $578$ ), In.	<u>143.357</u>	<u>4.301</u>
Max Width (@ $X_0 = 513.127$ ), In.	<u>152.412</u>	<u>4.572</u>
Max Depth (@ $X_0 = 485.0$ ), In.	<u>25.00</u>	<u>0.750</u>
Fineness Ratio	<u>                    </u>	<u>                    </u>
Area	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>                    </u>	<u>                    </u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>

TABLE III (Cont'd)

MODEL COMPONENT	<u>ELEVON - E<sub>11</sub></u>
GENERAL DESCRIPTION	<u>6.0 In. F.S. gaps machined into E<sub>11</sub> elevon.</u> <u>Flipper doors centerbody pieces, and tipseals are not simulated.</u> <u>(Data are for one of two sides.)</u>
MODEL SCALE:	<u>0.030</u>
DRAWING NUMBER	<u></u>

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.189</u>
Span (equivalent) , In.	<u>349.2</u>	<u>10.476</u>
Inb'd equivalent chord, In.	<u>118.0</u>	<u>3.54</u>
Outb'd equivalent chord , In.	<u>55.19</u>	<u>1.656</u>
Ratio movable surface chord/ total surface chord	<u></u>	<u></u>
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees	<u></u>	<u></u>
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.0</u>	<u>0.0</u>
(Product of Area & $\bar{c}$ ) <sub>3</sub>	<u></u>	<u></u>
Area Moment (Normalized), Ft <sup>3</sup>	<u>1587.25</u>	<u>0.0429</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>2.721</u>

TABLE III (Cont'd)

MODEL COMPONENT : BODY FLAP - F<sub>9</sub>

GENERAL DESCRIPTION : Configuration 140A/B

MODEL SCALE: 0.030

DRAWING NUMBER : VL70-000140B, -000200

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (Chord), In.	<u>84.7</u>	<u>2.541</u>
Max Width , In.	<u>262.308</u>	<u>7.869</u>
Max Depth , In.	<u>23.00</u>	<u>0.690</u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft <sup>2</sup>	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>142.60</u>	<u>0.128</u>
Wetted	<u> </u>	<u> </u>
Base	<u>41.90</u>	<u>0.0377</u>

TABLE III (Cont'd)

MODEL COMPONENT : OMS POD - M<sub>16</sub>

GENERAL DESCRIPTION : Configuration 140C orbiter OMS pod - short pod.  
External contour is to referenced drawings with 1/2" added to simulate  
TPS.

MODEL SCALE: 0.015

DRAWING NUMBER : VL70-008401. -008410

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta $X_0 = 1310.5$ ), In.	<u>258.50</u>	<u>7.755</u>
Max Width (@ $X_0 = 1511$ ), In.	<u>136.8</u>	<u>4.104</u>
Max Depth (@ $X_0 = 1511$ ), In.	<u>74.70</u>	<u>2.241</u>
Fineness Ratio	<u>2.484</u>	<u>2.484</u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u>58.865</u>	<u>0.053</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>



GENERAL DESCRIPTION: Configuration 140A/B orbiter OMS nozzles.

MODEL SCALE: 0.030

DRAWING NUMBER: VL70-000140A (Location), SS-A00106, Release 9 (Contour)

DIMENSIONS:	FULL SCALE	MODEL SCALE
-------------	------------	-------------

Length - In.

\_\_\_\_\_

\_\_\_\_\_

[illegible]

\_\_\_\_\_

<u>1518.0</u>	<u>45.54</u>
<u>- 88.0</u>	<u>- 2.64</u>
<u>492.</u>	<u>44.76</u>

1518.0	45.54
88.0	2.64
492.0	14.76

$$\begin{array}{r} 15^{\circ}49' \\ \underline{12^{\circ}17'} \end{array} \quad \begin{array}{r} 15^{\circ}49' \\ \underline{12^{\circ}17'} \end{array} -$$
$$\begin{array}{r} 15^{\circ}49' \\ \hline 12^{\circ}17' \\ \hline \end{array}$$

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TABLE III (Cont'd)

MODEL COMPONENT RUDDER - R<sub>5</sub>

GENERAL DESCRIPTION Configuration 140C orbiter rudder (identical to configuration 140A/B rudder).

MODEL SCALE: 0.030

DRAWING NUMBER VL70-000146B, -000095

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft <sup>2</sup>	<u>100.15</u>	<u>0.090</u>
Span (equivalent), In.	<u>201.00</u>	<u>6.030</u>
Inb'd equivalent chord, In.	<u>91.585</u>	<u>2.748</u>
Outb'd equivalent chord, In.	<u>50.833</u>	<u>1.525</u>
Ratio movable surface chord/ total surface chord	<u>          </u>	<u>          </u>
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees	<u>          </u>	<u>          </u>
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
(Product of area & $\bar{c}$ )		
Area Moment (Non-dimensional), Ft <sup>3</sup>	<u>610.92</u>	<u>0.0165</u>
Mean Aerodynamic Chord, In.	<u>73.2</u>	<u>2.196</u>

TABLE III (Cont'd)

MODEL COMPONENT: VERTICAL - V<sub>8</sub>GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail.(Identical to configuration 140A/B vertical tail.)MODEL SCALE: 0.030DRAWING NUMBER: VL70-000140C, -000146B

## DIMENSIONS:

FULL SCALEMODEL SCALE

## TOTAL DATA

Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.372</u>
Span (Theo) - In.	<u>315.72</u>	<u>9.472</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>8.055</u>
Tip (Theo) WP	<u>108.47</u>	<u>3.254</u>
MAC	<u>199.81</u>	<u>5.994</u>
Fus. Sta. of .25 MAC	<u>1463.35</u>	<u>43.901</u>
W.P. of .25 MAC	<u>635.52</u>	<u>19.066</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.0</u>	<u>10.0</u>
Trailing Wedge Angle - Deg.	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius	<u>2.0</u>	<u>0.060</u>
Void Area	<u>13.17</u>	<u>0.0019</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III (Concl'd)

MODEL COMPONENT: WING-W<sub>11</sub>GENERAL DESCRIPTION: Configuration 4NOTE: Identical to W<sub>11</sub>, except airfoil thickness. Dihedral angle is along trailing edge of wing.MODEL SCALE: 0.030

TEST NO.

DWG. NO. VL70-000140A, -000200DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATAArea (Theo.)  $\text{Ft}^2$ 

Planform

2690.00

2.421

Span (Theo) In.

936.68

28.10

Aspect Ratio

2.265

2.265

Rate of Taper

1.177

1.177

Taper Ratio

0.200

0.200

Dihedral Angle, degrees

3.500

3.500

Incidence Angle, degrees

0.500

0.500

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

- 10.056

- 10.056

0.25 Element Line

35.209

35.209

## Chords:

Root (Theo) B.P.O.O.

689.24

20.677

Tip, (Theo) B.P.

137.85

4.136

MAC

474.81

14.244

Fus. Sta. of .25 MAC

1136.83

34.105

W.P. of .25 MAC

290.58

8.717

B.L. of .25 MAC

182.13

5.464

EXPOSED DATAArea (Theo)  $\text{Ft}^2$ 

1751.50

1.576

Span, (Theo) In. BP108

720.68

21.620

Aspect Ratio

2.059

2.059

Taper Ratio

0.245

0.245

## Chords

Root BP108

562.09

16.863

Tip 1.00  $\frac{b}{2}$ 

137.85

4.136

MAC

392.83

11.785

Fus. Sta. of .25 MAC

1185.98

35.579

W.P. of .25 MAC

295.30

8.829

B.L. of .25 MAC

251.77

7.555

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$  =

0.113

0.113

Tip  $\frac{b}{2}$  =

0.120

0.120

Data for (1) of (2) Sides

Leading Edge Cuff  $\frac{b}{2}$ Planform Area  $\text{Ft}^2$ 

114.18

0.102

Leading Edge Intersects Fus M. L. @ Sta

500.0

15.0

Leading Edge Intersects Wing @ Sta

1025.0

30.730

TABLE IV.

## FUSELAGE PRESSURE TAP LOCATIONS -

ORBITER - IN.		$\Phi$ RADIAL LOCATION ~ DEGREES																					
Full	$X_c/L_c$	0	20	40	55	70	90	105	110	120	135	140	150	151	156	162	165	169	174	180	185	195	
23F	7.05	0	7																		1	1	
245	7.35	.008	8				9														10	3	
265	7.95	.023	11	12	13	14	15	16		17			18								19	9	
295	9.85	.046		24	25	26	27	28		29			30								31	8	
325	9.75	.070		36	37	38	39	40		41			42								43	8	
330	11.40	.112	47	48	49	50	51	52		53			54								55	9	
440	13.20	.158																	59			1	
450	13.50	.166	60	61	62	63	64	65		66			67					68			69	10	
465	13.95	.177												73	74							2	
500	15.00	.204	75	76	77	78	79	80		81		82	83				84				85	11	
560	16.80	.251	89		90		91	92		93			94				95				96	8	
625	18.75	.301	98		99		100	101		102			103				104				105	8	
725	21.75	.378	107		108		109	110		111			112				113				114	8	
880	26.40	.497	116		117		118	119		120			121				122				123	8	
980	29.40	.574	125		126																	2	
1080	32.40	.652	128		129		130	131		132			133				134				135	8	
1180	35.40	.729	137		138		139	140		141			142								143	7	

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TABLE IV. - Concluded.

FUSELAGE PRESSURE TAP LOCATIONS

Orbiter - M.	$\Phi$ RADIAL LOCATION ~ DEGREES																		
	$\frac{X}{L}$	0	20	40	55	70	90	105	110	120	135	140	150	151	156	162	165	169	174
Full Model	719	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162
1245	37.35	719	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161
1300	39.0	821	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172
1375	41.25	879	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182
1430	42.9	921	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192
1480	44.4	960	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202
1530	45.9	999																	

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TABLE V.

Y	Y6	LEFT WING PRESSURE TAP LOCATIONS																16 TAPS	34 TAPS
		X/C	C	.041	.113	.287	.429	.547	.633	.727	.793								
.235	110	TOP	208	209	210	211	212	213	214	215	216							9	9
		BOT	—	—	—	—	—	—	—	—	—							0	
		X/C	0	.010	.020	.030	.044	.229	.362	.497		.700	.834	.865	.900	.945			
.289	140	TOP	217	218	219	220	221	222	223	224		.225	.226	.227	.228	.229		13	34
		BOT		230	231	232	233	234	235	236		.237	.238	.239	.240	.241		12	
		X/C	0	.010	.020	.030	.046	.163	.246	.390		.637	.798	.839	.879	.919	.955		
.364	170	TOP	242	243	244	245	246	247	248	249		.250	.251	.252	.253	.254	.255	14	61
		BOT		256	257	258	259	260	261	262		.263	.264	.265	.266	.267	.268	13	
		X/C	0	.010	.020	.040	.083	.177	.274	.402	.565	.760	.808	.837	.905	.953	1.00		
.427	200	TOP	269	270	271	272	273	274	275	276	.277	.278	.279	.280	.281	.282		14	89
		BOT		283	284	285	286	287	288	289	290	291	292	293	294	295	296	14	
		X/C	0	.010	.020	.050	.080	.150	.250	.400	.550	.725	.775	.830	.900	.950			
.534	250	TOP	297	298	299	300	301	302	303	304	305	306	307	308	309	310		14	116
		BOT		311	312	313	314	315	316	317	318	319	320	321	322	323		13	
		X/C																	

TABLE V. - Concluded.

71	Y6	LEFT WING PRESSURE TAP LOCATIONS																				No TAPS	Σ No TAPS			
		1/2	0	.010	.020	.030	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400					
641	300	TOP																							3	123
		BOT																							4	
673	315	1/2	0	.010	.020	.030	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400				9	140
		TOP	324	325	326	327	328	329	330	331	332														8	
780	365	1/2	0	.010	.020	.030	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400				10	159
		TOP	348	349	350	351	352	353	354	355	356	357													9	
887	415	1/2	0	.010	.020	.030	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400				10	179
		TOP	367	368	369	370	371	372	373	374	375	376													10	
972	455	1/2	0	.020	.069	.157	.345	.523	.620	.862															8	194
		TOP	387	388	389	390	391	392	393	394															7	
10	483	1/2	0	.010	.020	.030	.050	.075	.100	.125	.150	.175	.200	.225	.250	.275	.300	.325	.350	.375	.400				2	196
		TOP	402	403																						

TABLE VI.

ORBITER VERTICAL TAIL & SPEED BRAKE  
PRESSURE TAP LOCATIONS

VERTICAL (LH ONLY)		$X/C_v$											
$Z_0$	$Z_0$ MODEL SCALE	$\eta_1$	0	.025	.05	.15	.30	.52	.685	.775	.90	$\eta_2$ TAPS	$\Sigma \eta_2$ TAPS
550	16.5	.53	430	431	432	433	434	435	436	437		8	8
600	18.0	.316	438	439	440	441	442	443	444	445	446	9	17
645	19.35	.458							444	445	446	3	20
690	20.70	.600	447	448	449	450	451	452	453	454	455	9	29
720	21.6	.720							453	454	455	3	32
765	22.95	.840	456	457	458	459	460	461	462	463	464	9	41
792	23.76	.925	465	466	467	468	469	470	471	472	473	9	50

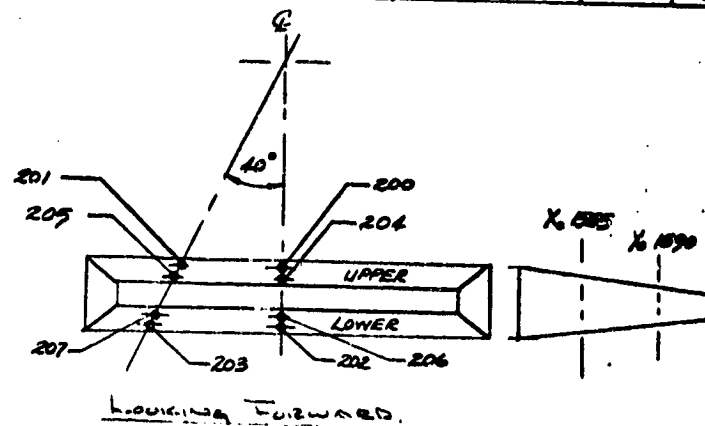
SPEED BRAKE (R.H. (MOTOR))		X/50V									
$Z_0$	FULL SCALE	$Z_0$ MODEL SCALE	$\eta_1/58$	.10	.25	.40	.65	.90	$\eta_2$ TAPS	$\Sigma \eta_2$ TAPS	
600		18.0	.110	801	802	803	804	805	5	5	
630		18.9	.254	806	807	808	809	810	5	10	
666		19.8	.407	811	812	813	814	815	5	15	
690		20.7	.567	816	817	818	819	820	5	20	
720		21.6	.706	821	822	823	824	825	5	25	
750		22.5	.856	826	827	828	829	830	5	30	



TABLE VII.

BODYFLAP PRESSURE TAP LOCATIONS

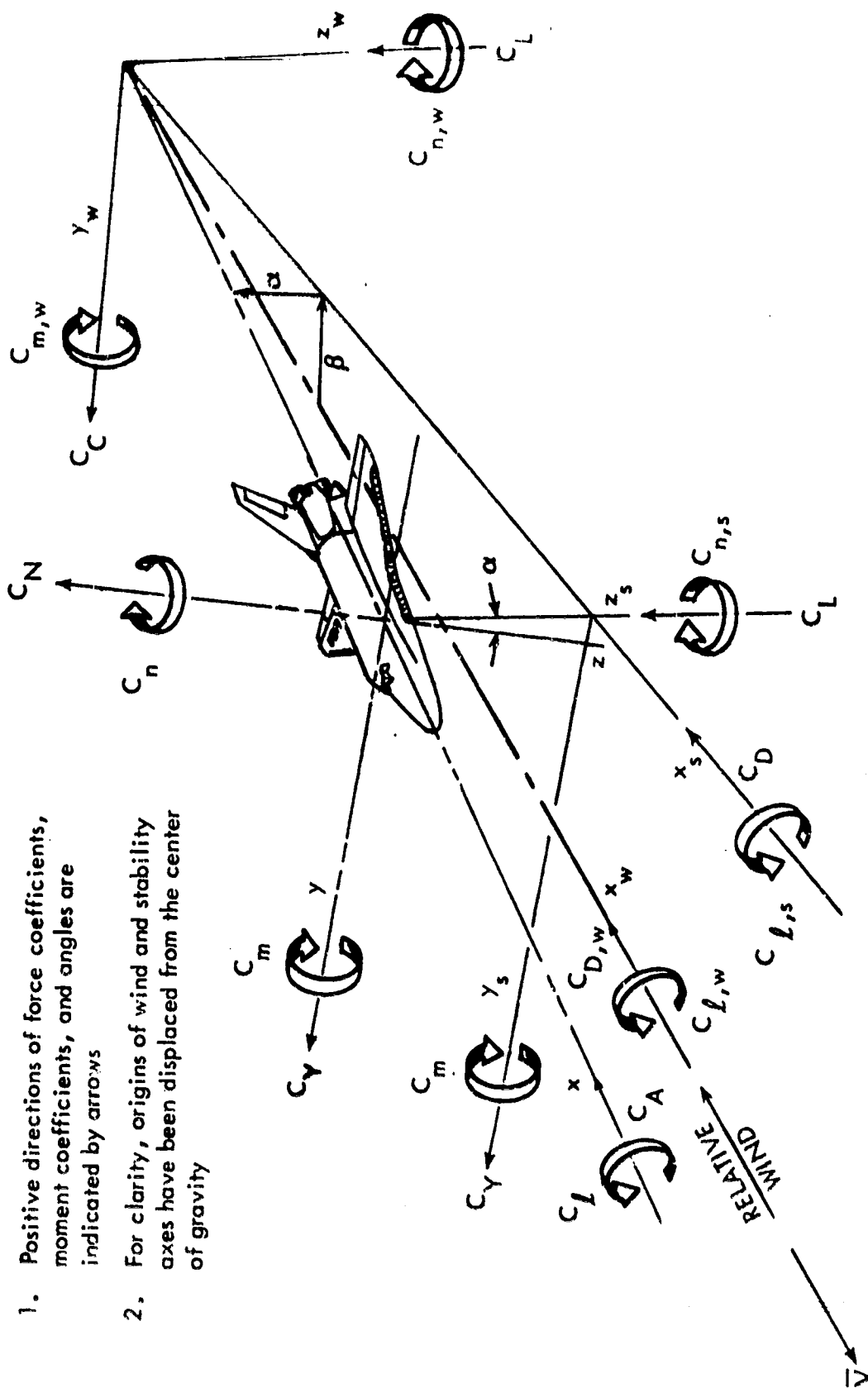
ORBITER-X <sub>0</sub>			$\phi$ - DEGREES		No. TAPS	$\Sigma$ No TAPS
FULL SCALE	MODEL SCALE	X <sub>0</sub> /L <sub>0</sub>	$\phi$	40		
1535 U	46.65	1.018	200	201	2	2
1535 L	46.65	1.018	202	203	2	4
1590 U	47.70	1.046	204	205	2	6
1590 L	47.70	1.046	206	207	2	8



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# **Notes:**

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

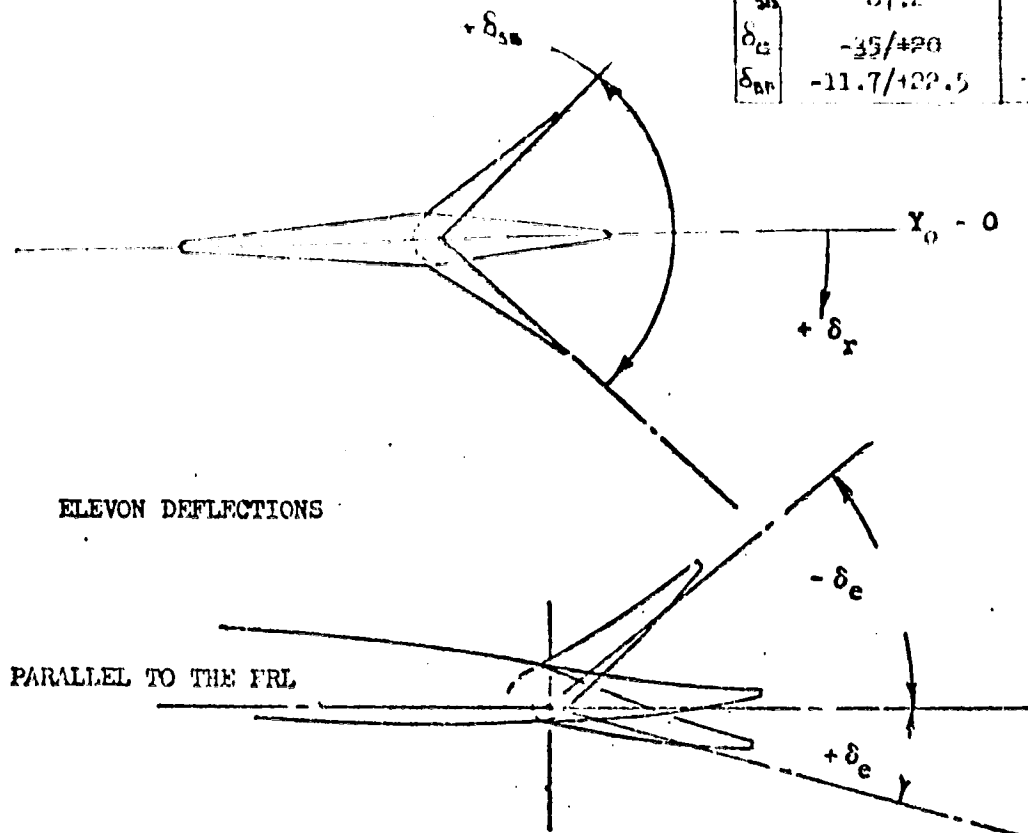


a. Orbiter Axis Systems

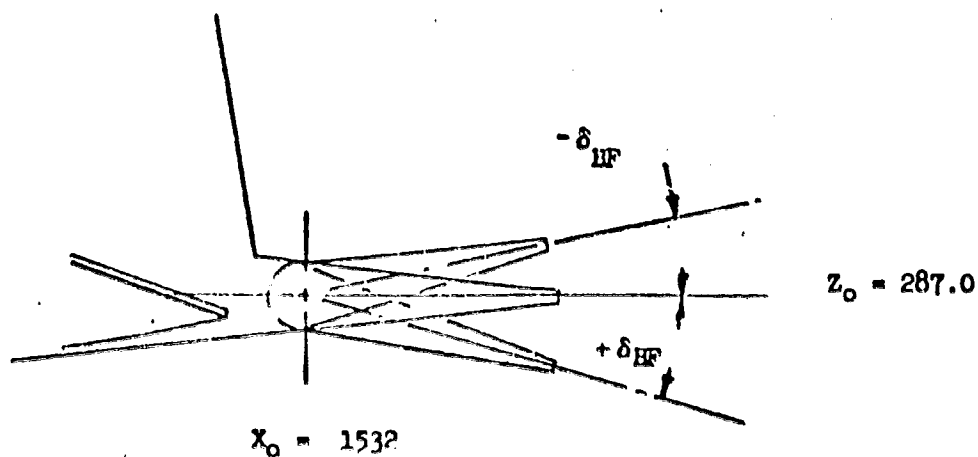
Figure 1. - Axis systems and sign conventions

RUDDER AND SPEED BRAKE DEFLECTIONS  
(PARALLEL TO THE FRL)

	Maximum Deflections	
	Vehicle (40000) Test CAL-5	
$\delta_r$	22.8	$\pm 10$
$\delta_{sb}$	87.2	85
$\delta_{sc}$	-35/+20	$\pm 10$
$\delta_{br}$	-11.7/+22.5	-11.7 / +22.5

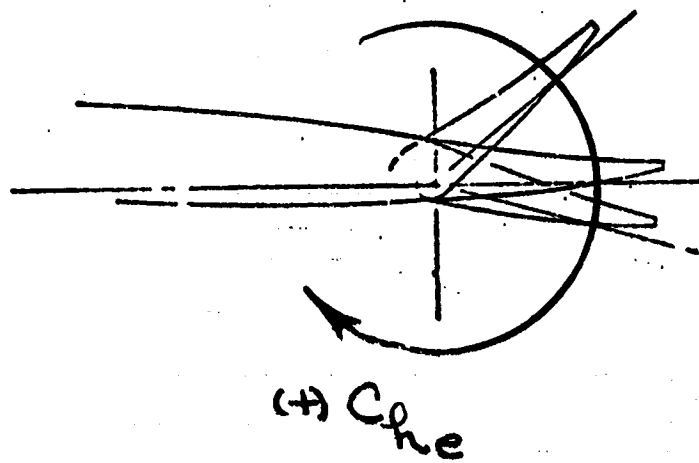


BODY FLAP DEFLECTIONS



b. Definition of Angular Measurements

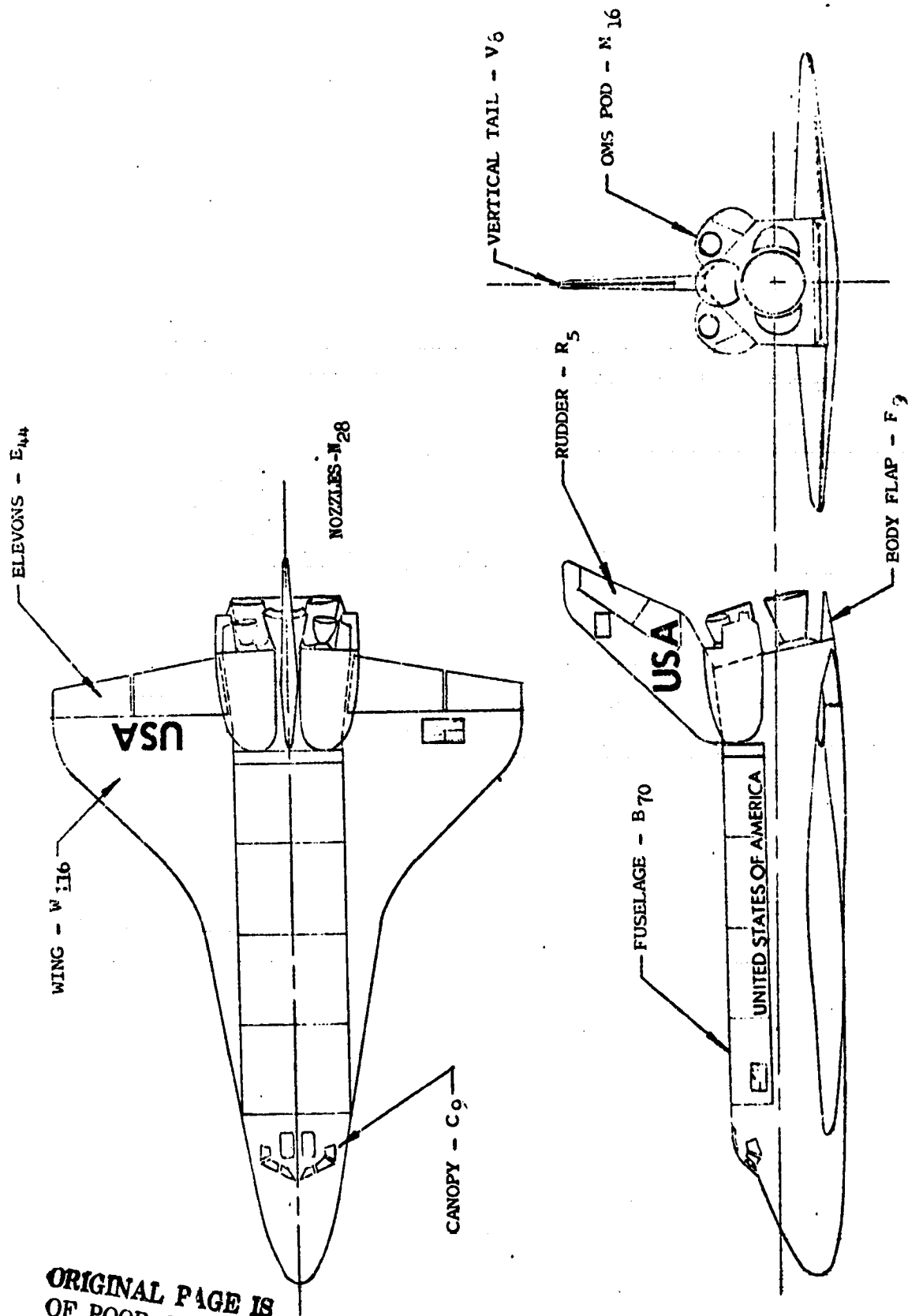
Figure 1. - Continued.



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c. Elevation Hinge Moment Sign Convention

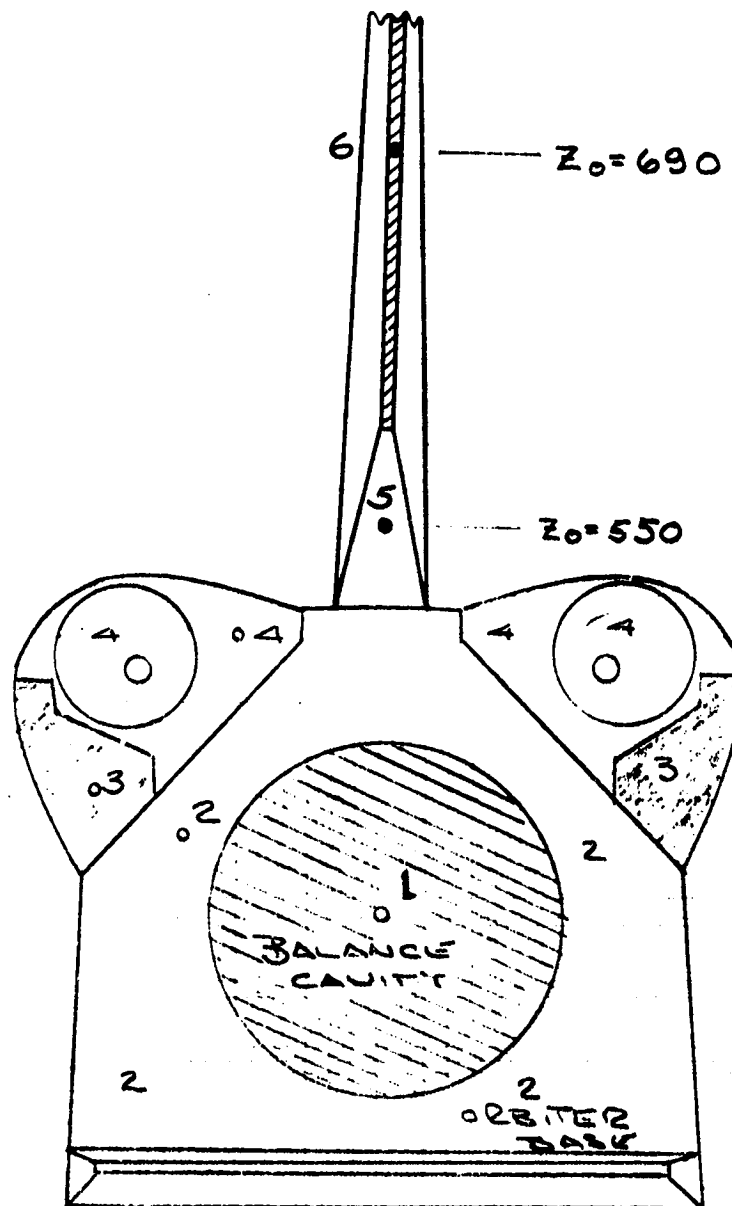
Figure 1. - Concluded.



a. Configuration - 140A/B/C/R

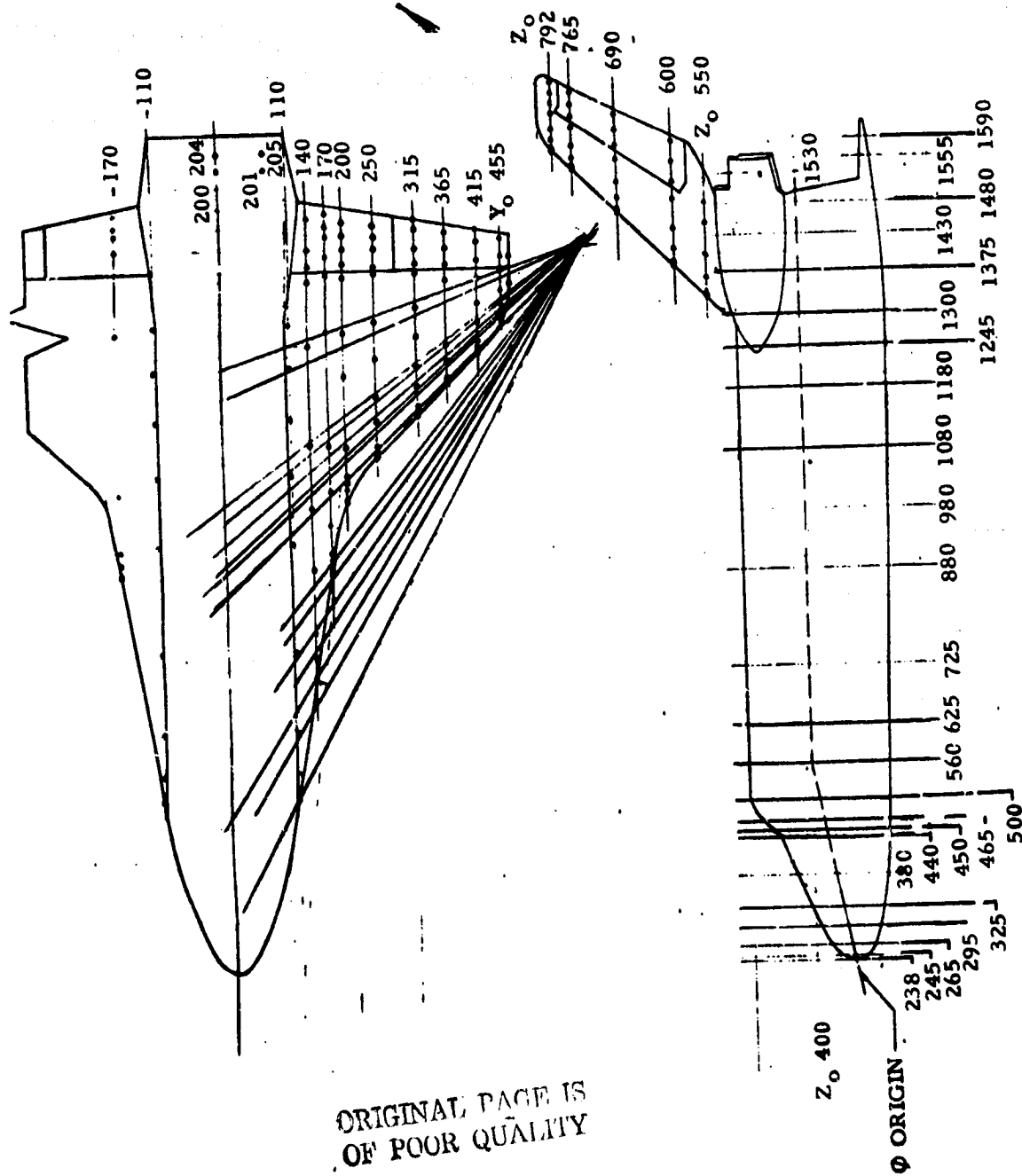
Figure 2. - Model sketches.

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AREA NO.	PROJECTED AXIAL VALUE
A1	0.076699 ft <sup>2</sup>
A2	0.215695 ft <sup>2</sup>
A3	0.034072 ft <sup>2</sup>
A4	0.074167 ft <sup>2</sup>

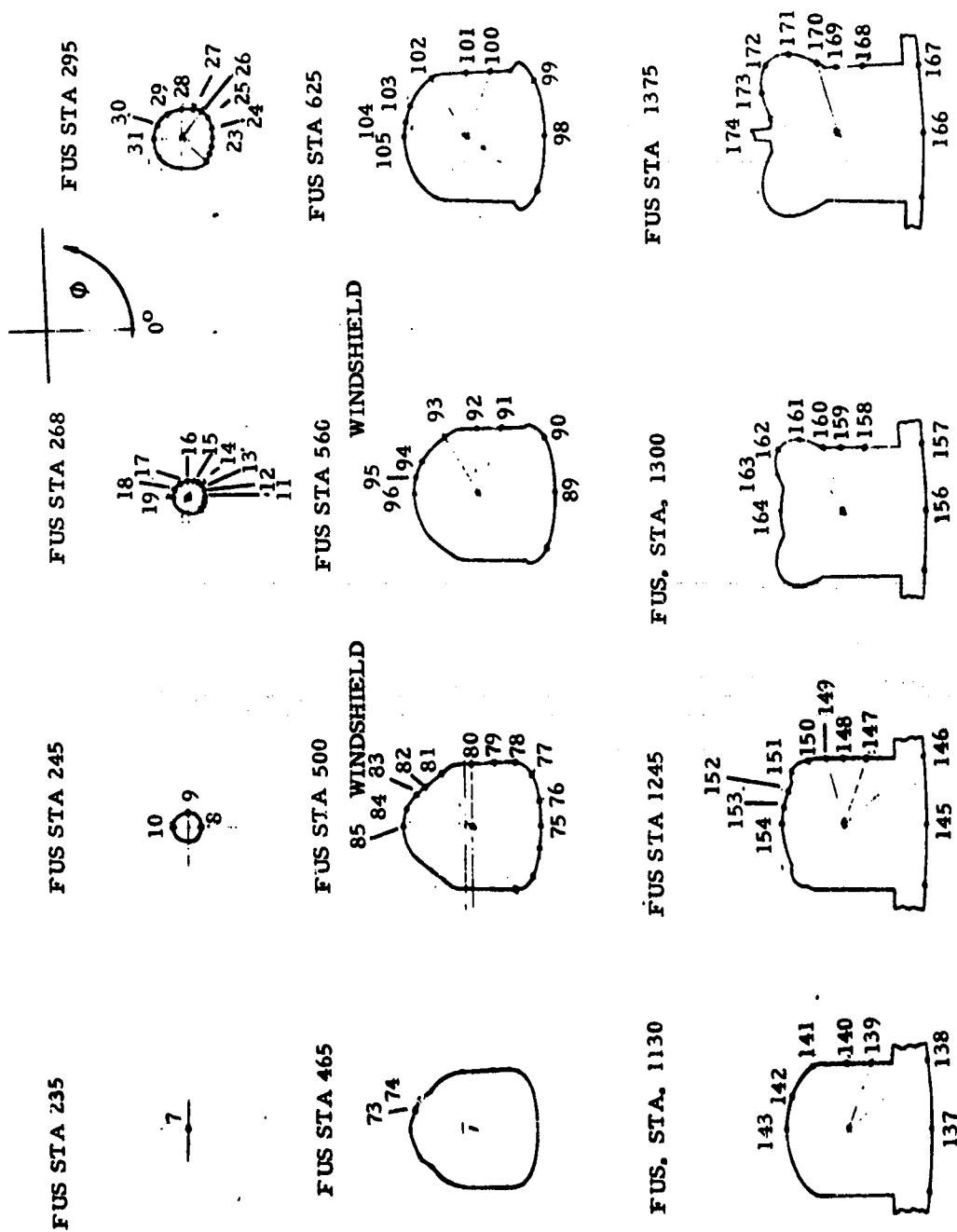
b. Base Pressure Taps and Areas  
Figure 2. - Continued.



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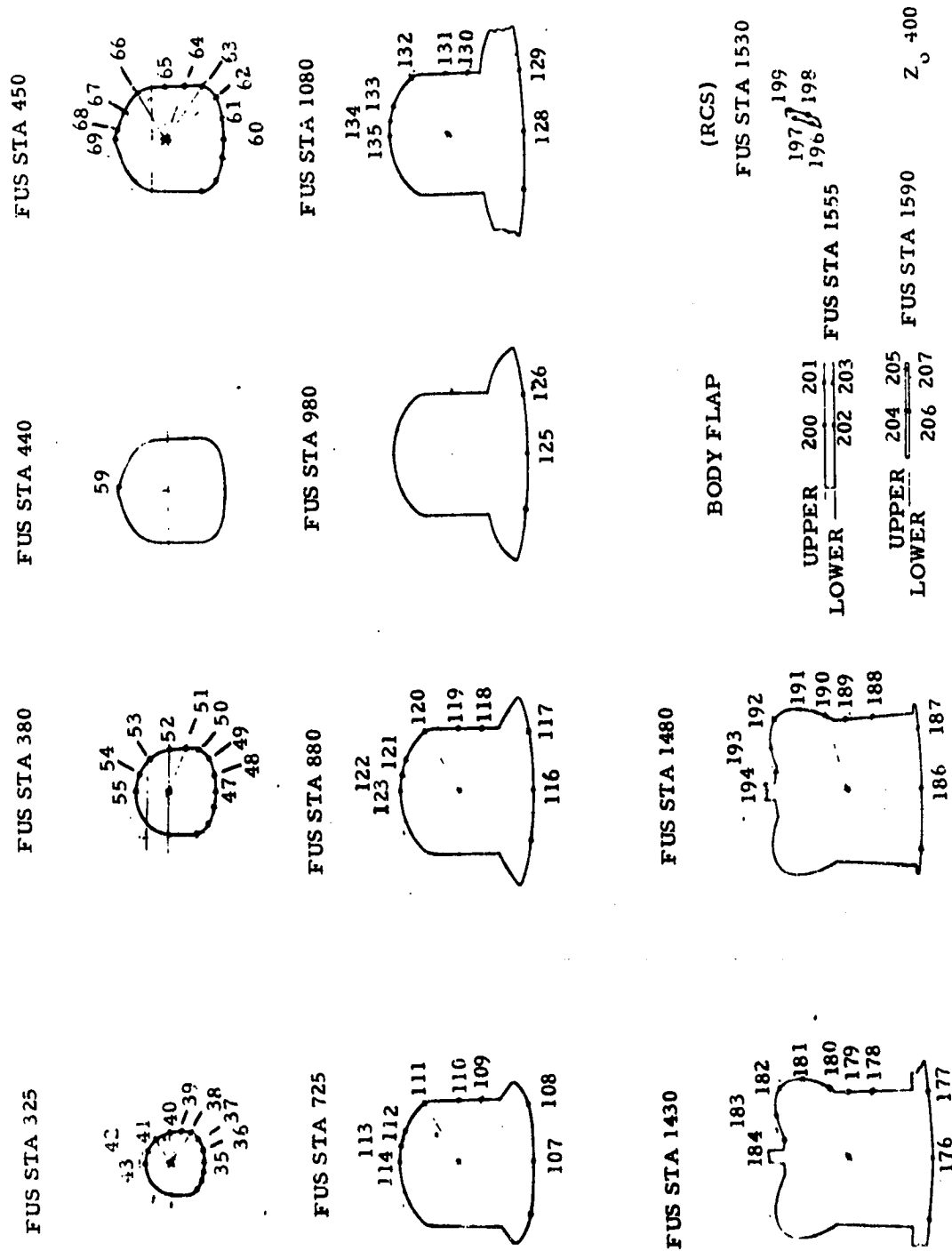
c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.

NOTE: VIEW LOOKING AFT



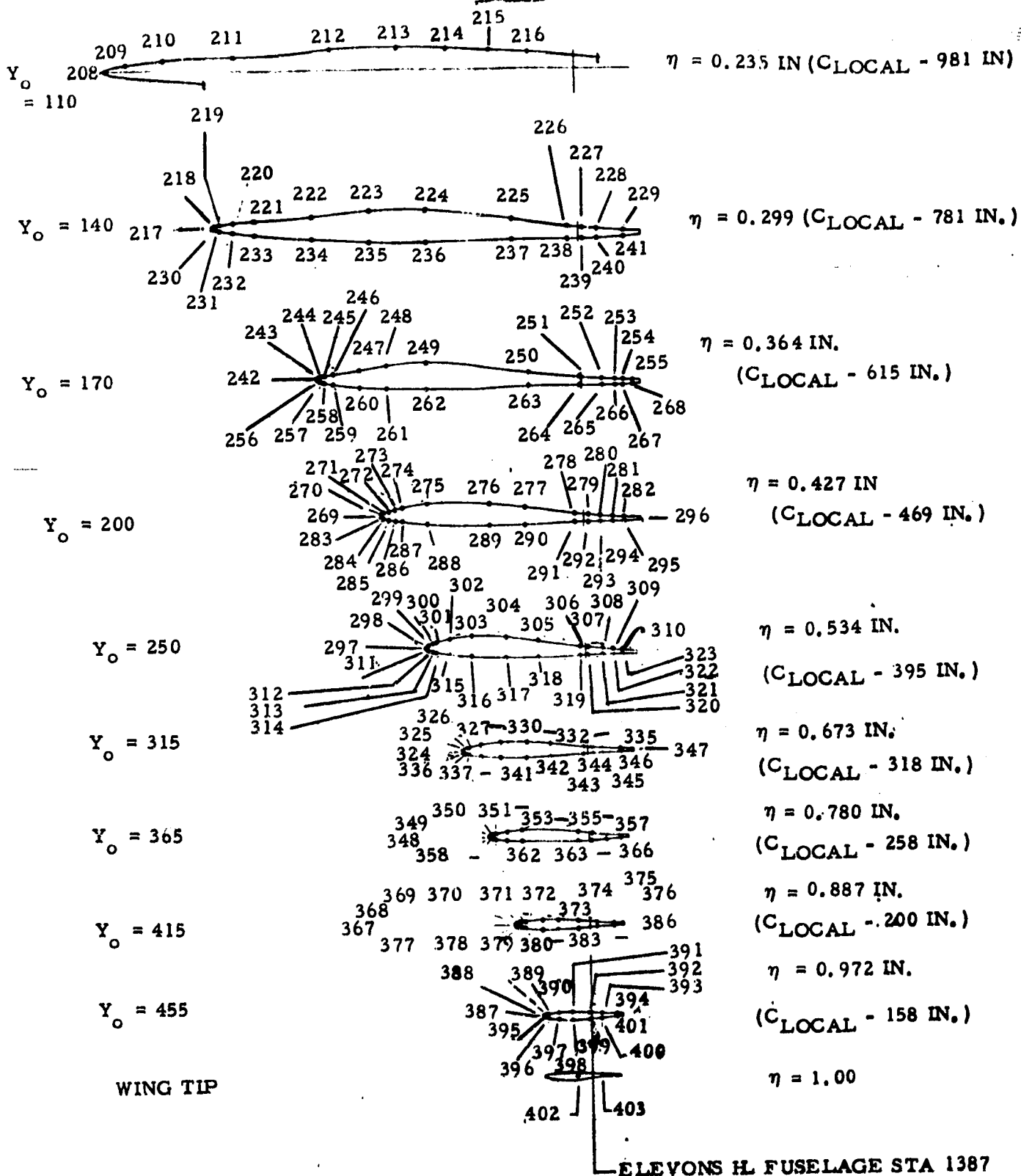
c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.





c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
Figure 2. - Continued.

# PRESSURE ORIFICE LOCATION OF LEFT WING PANEL



c. Fuselage, Vertical Tail, and Wing Pressure Tap Locations  
 Figure 2. - Continued.

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5405

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F01) ( 05 AUG 75 )

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.099 BETA ( 1 ) = -3.881 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3315 -.3267  
40.000 -.3630 -.3735

ALPHA ( 1 ) = -4.089 BETA ( 2 ) = .154 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3271 -.3209  
40.000 -.3627 -.3740

ALPHA ( 1 ) = -4.099 BETA ( 3 ) = 4.236 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3382 -.3387  
40.000 -.3520 -.3638

ALPHA ( 2 ) = -.076 BETA ( 1 ) = -3.908 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3298 -.3321  
40.000 -.3500 -.3603

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = .000 MACH = 1.400

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF01)

ALPHA ( 2 ) = -.077 BETA ( 2 ) = .147 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3270 -.3313  
40.000 -.3477 -.3846

ALPHA ( 2 ) = -.058 BETA ( 3 ) = 4.215 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3471 -.3514  
40.000 -.3409 -.3579

ALPHA ( 3 ) = 3.825 BETA ( 1 ) = -3.904 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3351 -.3391  
40.000 -.3479 -.3575

ALPHA ( 3 ) = 3.825 BETA ( 2 ) = .146 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3357 -.3424  
40.000 -.3383 -.3481

ALPHA ( 3 ) = 3.827 BETA ( 3 ) = 4.205 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3433 -.3514  
40.000 -.3405 -.3595

DATE 13 FEB 75

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP (XE8F01)

ALPHA ( 4 ) = 7.859 BETA ( 1 ) = -3.5J3 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3521 -.3542  
40.000 -.3597 -.3745

ALPHA ( 4 ) = 7.859 BETA ( 2 ) = .143 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3499 -.3539  
40.000 -.3542 -.3682

ALPHA ( 4 ) = 7.869 BETA ( 3 ) = 4.207 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3357 -.3593  
40.000 -.3522 -.3746

ALPHA ( 5 ) = 11.904 BETA ( 1 ) = -3.884 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3753 -.3734  
40.000 -.3624 -.3713

ALPHA ( 5 ) = 11.913 BETA ( 2 ) = .151 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3723 -.3715  
40.000 -.3597 -.3873

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF01)

ALPHA ( 5 ) = 11.909 BETA ( 3 ) = 4.219 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3706 -.3609  
40.000 -.3854 -.3938

ALPHA ( 6 ) = 15.872 BETA ( 1 ) = -3.862 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3884 -.3707  
40.000 -.3841 -.3862

ALPHA ( 5 ) = 15.886 BETA ( 2 ) = .149 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3936 -.3660  
40.000 -.4003 -.4163

ALPHA ( 6 ) = 15.901 BETA ( 3 ) = 4.249 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3865 -.3598  
40.000 -.4061 -.4183

DATE 13 FEB '76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP  
(XREF02) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.081 BETA ( 1 ) = -3.888 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3656 -.3688  
 40.000 -.3936 -.4079

ALPHA ( 1 ) = -4.075 BETA ( 2 ) = .154 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3564 -.3518  
 40.000 -.3809 -.3976

ALPHA ( 1 ) = -4.083 BETA ( 3 ) = 4.234 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3714 -.3754  
 40.000 -.3768 -.4000

ALPHA ( 2 ) = -.037 BETA ( 1 ) = -3.909 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3718 -.3709  
 40.000 -.3864 -.3926

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 SDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 5412

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP

(XEBF02)

ALPHA ( 2 ) = -.032 BETA ( 2 ) = .147 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3622 -.3696  
40.000 -.3667 -.3853

ALPHA ( 2 ) = -.038 BETA ( 3 ) = 4.211 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3885 -.3947  
40.000 -.3606 -.3773

ALPHA ( 3 ) = 3.858 BETA ( 1 ) = -3.910 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3727 -.3745  
40.000 -.3858 -.3941

ALPHA ( 3 ) = 3.859 BETA ( 2 ) = .139 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3724 -.3786  
40.000 -.3757 -.3919

ALPHA ( 3 ) = 3.860 BETA ( 3 ) = 4.204 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2929 -.3944  
40.000 -.3755 -.3853



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 7.842 BETA ( 1 ) = -3.905 MACH = 1.2465 Q = 599.60 P = .34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3929 -1.3890  
40.000 -1.4019 -1.4148

ALPHA ( 4 ) = 7.841 BETA ( 2 ) = .143 MACH = 1.2465 Q = 599.60 P = 551.34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3922 -1.3948  
40.000 -1.4003 -1.4170

ALPHA ( 4 ) = 7.841 BETA ( 3 ) = 4.209 MACH = 1.2465 Q = 599.60 P = 551.34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3872 -1.4008  
40.000 -1.3911 -1.4188

ALPHA ( 5 ) = 11.942 BETA ( 1 ) = -3.887 MACH = 1.2452 Q = 599.20 P = 552.04 RN/L = 3.0172

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4168 -1.4135  
40.000 -1.4138 -1.4208

ALPHA ( 5 ) = 11.952 BETA ( 2 ) = .149 MACH = 1.2452 Q = 599.20 P = 552.04 RN/L = 3.0172

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4058 -1.4215  
40.000 -1.4211 -1.4416

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5412

AMES 11-07310A148) -1407'B/C/R ORB BODY FLAP UP

(XE8F02)

ALPHA ( 5 ) = 11.946    PETA ( 3 ) = 4.215    MACH = 1.2452    Q = 599.20    P = 552.04    RN/L = 3.0172

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    -.4133    -.4178  
40.000    -.4198    -.4494

DATE 13 FEB '66

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5413

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF03) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.048 BETA ( 1 ) = -3.881 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.097 -4.201  
40.000 -4.305 -4.432

ALPHA ( 2 ) = -4.035 BETA ( 2 ) = .153 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.046 -4.149  
40.000 -4.121 -4.403

ALPHA ( 3 ) = -4.044 BETA ( 3 ) = 4.236 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.155 -4.322  
40.000 -4.155 -4.606

ALPHA ( 2 ) = -0.027 BETA ( 1 ) = -3.903 MACH = 1.0988 Q = 599.62 P = 709.54 RN/L = 3.1868

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.155 -4.129  
40.000 -4.275 -4.384

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = .000 MACH = 1.100

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OF POOR QUALITY

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF03)

ALPHA ( 2 ) = -.023 BETA ( 2 ) = .144 MACH = 1.0988 Q = 599.62 P = 709.54 RN/L = 3.1868

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4069 -.4174  
40.000 -.4121 -.4312

ALPHA ( 2 ) = -.029 BETA ( 3 ) = 4.209 MACH = 1.0988 Q = 599.62 P = 709.54 RN/L = 3.1868

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4265 -.4332  
40.000 -.3860 -.4001

ALPHA ( 3 ) = 3.893 BETA ( 1 ) = -3.903 MACH = 1.0982 Q = 599.43 P = 710.01 RN/L = 3.1855

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4179 -.4153  
40.000 -.4327 -.4329

ALPHA ( 3 ) = 3.894 BETA ( 2 ) = .147 MACH = 1.0982 Q = 599.43 P = 710.01 RN/L = 3.1855

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4151 -.4225  
40.000 -.4225 -.4433

ALPHA ( 3 ) = 3.895 BETA ( 3 ) = 4.201 MACH = 1.0982 Q = 599.43 P = 710.01 RN/L = 3.1855

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4372 -.4365  
40.000 -.4136 -.4176

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5415

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F03)

ALPHA ( 4 ) = 7.886 BETA ( 1 ) = -3.639 MACH = 1.0976 Q = 599.10 P = 710.48 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4416 -.4440  
40.000 -.4548 -.4610

ALPHA ( 4 ) = 7.886 BETA ( 2 ) = .144 MACH = 1.0976 Q = 599.10 P = 710.48 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4375 -.4409  
40.000 -.4370 -.4526

ALPHA ( 4 ) = 7.886 BETA ( 3 ) = 4.200 MACH = 1.0976 Q = 599.10 P = 710.48 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4562 -.4619  
40.000 -.4416 -.4579

ALPHA ( 5 ) = 11.990 BETA ( 1 ) = -3.881 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4659 -.4655  
40.000 -.4739 -.4856

ALPHA ( 5 ) = 11.997 BETA ( 2 ) = .149 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4345 -.4448  
40.000 -.4488 -.4723

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5416

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF03)

RN/L = 3.1856

P = 599.38

= 710.48

Q = 1.0978

MACH = 4.212

BETA ( 3 ) = 11.992

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

40.000 -4732 -4773  
0.000 -4668 -4988

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF04) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.058 BETA ( 1 ) = -3.880 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3122 -.3203  
 40.000 -.3036 -.3423

ALPHA ( 1 ) = -4.036 BETA ( 2 ) = .153 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3005 -.3071  
 40.000 -.3207 -.3479

ALPHA ( 1 ) = -4.047 BETA ( 3 ) = 4.237 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3006 -.3037  
 40.000 -.3344 -.3619

ALPHA ( 2 ) = -.025 BETA ( 1 ) = -3.907 MACH = .89827 Q = 599.10 P = 1060.7 RN/L = 3.5698

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3146 -.3048  
 40.000 -.3105 -.3478

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA -- 0A148 ( AMES 11-073-1 )

PAGE 5418

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F04)

ALPHA ( 2 ) = -.020 BETA ( 2 ) = .144 MACH = .99827 Q = 599.10 P = 1060.7 RN/L = 3.5698

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2879 -.2951  
40.000 -.3096 -.3335

ALPHA ( 2 ) = -.027 BETA ( 3 ) = 4.215 MACH = .89827 Q = 599.10 P = 1060.7 RN/L = 3.5698

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3019 -.3139  
40.000 -.3218 -.3527

ALPHA ( 3 ) = 3.898 BETA ( 1 ) = -3.912 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2985 -.2958  
40.000 -.3198 -.3384

ALPHA ( 3 ) = 3.896 BETA ( 2 ) = .152 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2931 -.2866  
40.000 -.3007 -.3180

ALPHA ( 3 ) = 3.899 BETA ( 3 ) = 4.208 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2955 -.3123  
40.000 -.3001 -.3137



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5419

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F04)

ALPHA ( 4 ) = 7.895 BETA ( 1 ) = -3.903 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2829 -.2946  
40.000 -.3051 -.3182

ALPHA ( 4 ) = 7.900 BETA ( 2 ) = .140 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2856 -.2933  
40.000 -.2847 -.3000

ALPHA ( 4 ) = 7.897 BETA ( 3 ) = 4.209 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2978 -.3033  
40.000 -.2757 -.2870

ALPHA ( 5 ) = 11.985 BETA ( 1 ) = -3.890 MACH = .89830 Q = 599.10 P = 1060.7 RN/L = 3.5735

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2992 -.3133  
40.000 -.2989 -.3135

ALPHA ( 5 ) = 11.993 BETA ( 2 ) = .152 MACH = .89830 Q = 599.10 P = 1060.7 RN/L = 3.5735

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2884 -.3003  
40.000 -.2879 -.3061ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5420

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBFDN)

ALPHA ( 5 ) = 11.982    BETA ( 3 ) = 4.122    MACH = .99830    Q = 599.10    P = 1060.7    RN/L = 3.5735

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    -.3020    -.3061  
40.000    -.3113    -.3272

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5421

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF05) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 EREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.995 BETA ( 1 ) = -7.893 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2415 -1.2376  
 40.000 -1.2814 -1.3192

ALPHA ( 1 ) = -3.981 BETA ( 2 ) = -3.877 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2424 -1.2395  
 40.000 -1.2763 -1.3076

ALPHA ( 1 ) = -3.973 BETA ( 3 ) = .156 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2395 -1.2424  
 40.000 -1.2761 -1.3164

ALPHA ( 1 ) = -3.981 BETA ( 4 ) = 4.231 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2449 -1.2369  
 40.000 -1.2806 -1.3154

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5422

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF05)

ALPHA ( 1 ) = -3.995 BETA ( 5 ) = 8.308 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2443 -.2578  
40.000 -.2741 -.3139

ALPHA ( 2 ) = -.001 BETA ( 1 ) = -7.930 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2497 -.2458  
40.000 -.2927 -.3119

ALPHA ( 2 ) = .008 BETA ( 2 ) = -3.896 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2455 -.2431  
40.000 -.2759 -.3095

ALPHA ( 2 ) = .009 BETA ( 3 ) = .144 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2402 -.2412  
40.000 -.2691 -.3134

ALPHA ( 2 ) = .008 BETA ( 4 ) = 4.214 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2393 -.2489  
40.000 -.2778 -.3055

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) - [40A/B/C/R ORB BODY FLAP UP (XEBF05)

ALPHA ( 2 ) = .033 BETA ( 5 ) = 8.269 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2566 -1.2573  
40.000 -1.2803 -1.3097

ALPHA ( 3 ) = 3.907 BETA ( 1 ) = -7.936 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2526 -1.2653  
40.000 -1.2926 -1.3123

ALPHA ( 3 ) = 3.912 BETA ( 2 ) = -3.897 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2450 -1.2474  
40.000 -1.2732 -1.3067

ALPHA ( 3 ) = 3.909 BETA ( 3 ) = .143 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2529 -1.2478  
40.000 -1.2628 -1.2911

ALPHA ( 3 ) = 3.918 BETA ( 4 ) = 4.207 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2533 -1.2551  
40.000 -1.2693 -1.3059

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBFC5)

ALPHA ( 3 ) = 3.922 BETA ( 5 ) = 8.252 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.2684 -1.2848  
40.000 -1.2527 -1.2778

ALPHA ( 4 ) = 7.956 BETA ( 1 ) = -7.918 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.2594 -1.2593  
40.000 -1.2940 -1.3128

ALPHA ( 4 ) = 7.955 BETA ( 2 ) = -3.894 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.2532 -1.2560  
40.000 -1.2817 -1.3025

ALPHA ( 4 ) = 7.970 BETA ( 3 ) = .145 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.2425 -1.2571  
40.000 -1.2535 -1.2757

ALPHA ( 4 ) = 7.969 BETA ( 4 ) = 4.201 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.2641 -1.2687  
40.000 -1.2556 -1.2829

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBFDS)

ALPHA ( 4 ) = 7.357 BETA ( 5 ) = 8.254 MACH = .59428 Q = 590.57 P = 2388.9 PN/L = 4.8047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2959 -1.2947  
+.0000 -1.2963 -1.2971

ALPHA ( 5 ) = 12.022 BETA ( 1 ) = -7.881 MACH = .59502 Q = 591.86 P = 2388.2 PN/L = 4.8047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2530 -1.2665  
+.0000 -1.2626 -1.3107

ALPHA ( 5 ) = 12.022 BETA ( 2 ) = -3.874 MACH = .59502 Q = 591.86 P = 2388.2 PN/L = 4.8047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2434 -1.2503  
+.0000 -1.2545 -1.2917

ALPHA ( 5 ) = 12.022 BETA ( 3 ) = .150 MACH = .59502 Q = 591.86 P = 2388.2 PN/L = 4.8047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2452 -1.2509  
+.0000 -1.2455 -1.2715

ALPHA ( 5 ) = 12.022 BETA ( 4 ) = 4.211 MACH = .59502 Q = 591.86 P = 2388.2 PN/L = 4.8047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2515 -1.2737  
+.0000 -1.2543 -1.2926

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XE8F05)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

RN/L = 4.8047

= 2388.2

P

= 591.85

Q

= .59502

MACH

= 8.278

BETA ( 5 ) =

12.020

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI

-.2731

-.2845

40.000

-.2497

-.2864



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

DATE 13 FEB 76

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F06) ( 05 AUG 75 )

REFERENCE DATA

SRIF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BRF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BDFLAP = 22.500 L-ELVN = .000  
R-ELVN = .000 MACH = .600

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -7.883 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2876 -.2686  
40.000 -.3052 -.3324

ALPHA ( 1 ) = -4.010 BETA ( 2 ) = -3.877 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2754 -.2638  
40.000 -.2953 -.3204

ALPHA ( 1 ) = -3.994 BETA ( 3 ) = .154 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2753 -.2695  
40.000 -.3002 -.3329

ALPHA ( 1 ) = -4.001 BETA ( 4 ) = 4.235 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2744 -.2621  
40.000 -.3083 -.3275

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP  
(XEBF06)

ALPHA ( 1 ) = -4.013 BETA ( 5 ) = 8.308 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2795 -.2824  
40.000 -.3000 -.3127

ALPHA ( 2 ) = .023 BETA ( 1 ) = -7.929 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2824 -.2742  
40.000 -.2999 -.3309

ALPHA ( 2 ) = .033 BETA ( 2 ) = -3.896 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2787 -.2743  
40.000 -.2958 -.3244

ALPHA ( 2 ) = .035 BETA ( 3 ) = .147 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2727 -.2612  
40.000 -.2881 -.3205

ALPHA ( 2 ) = .050 BETA ( 4 ) = 4.214 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2737 -.2713  
40.000 -.3075 -.3301

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XE8F06)

ALPHA ( 2 ) = .045 BETA ( 5 ) = 8.269 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2930 -.2853  
40.000 -.3089 -.3303

ALPHA ( 3 ) = 3.911 BETA ( 1 ) = -7.932 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8146

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2862 -.2828  
40.000 -.3040 -.3280

ALPHA ( 3 ) = 3.915 BETA ( 2 ) = -3.897 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8146

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2799 -.2755  
40.000 -.2967 -.3196

ALPHA ( 3 ) = 3.912 BETA ( 3 ) = .150 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8146

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2782 -.2756  
40.000 -.2886 -.3057

ALPHA ( 3 ) = 3.921 BETA ( 4 ) = 4.204 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8146

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2831 -.2841  
40.000 -.2947 -.3308

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A146) -140A/B/C/R ORB BODY FLAP UP

(XEBF06)

ALPHA ( 3 ) = 3.925 BETA ( 5 ) = 8.248 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3052 -.3093  
40.000 -.2780 -.2947

ALPHA ( 4 ) = 7.957 BETA ( 1 ) = -7.908 MACH = .59612 Q = 593.49 P = 2385.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2917 -.2818  
40.000 -.3037 -.3292

ALPHA ( 4 ) = 7.956 BETA ( 2 ) = -3.891 MACH = .59612 Q = 593.49 P = 2385.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2750 -.2709  
40.000 -.2877 -.3135

ALPHA ( 4 ) = 7.972 BETA ( 3 ) = .143 MACH = .59612 Q = 593.49 P = 2385.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2705 -.2753  
40.000 -.2751 -.2955

ALPHA ( 4 ) = 7.971 BETA ( 4 ) = 4.201 MACH = .59612 Q = 593.49 P = 2385.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2905 -.2876  
40.000 -.2726 -.3072

DATE 13 FEB 76

TABULATED PRESSURE DATA - DA148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF05)

ALPHA ( 4 ) = 7.569 BETA ( 5 ) = 8.255 MACH = .59612 Q = 593.49 P = 2365.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3177 -.3216  
40.000 -.2733 -.2996

ALPHA ( 5 ) = 12.008 BETA ( 1 ) = -7.872 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.9563

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2845 -.2852  
40.000 -.2982 -.3165

ALPHA ( 5 ) = 12.030 BETA ( 2 ) = -3.872 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2689 -.2725  
40.000 -.2720 -.2989

ALPHA ( 5 ) = 12.036 BETA ( 3 ) = .140 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2792 -.2797  
40.000 -.2665 -.2905

ALPHA ( 5 ) = 11.949 BETA ( 4 ) = 4.211 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2905 -.2959  
40.000 -.2655 -.2824

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF06)

ALPHA ( 5 ) = 12.026 BETA ( 5 ) = 8.275 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3077

40.000 -.2670 -.3010

DATE 13 FEB 76  
 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
 (XEBF07) ( 13 AUG 75 )  
 AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0680 IN. ZMRP = .75.0000 IN. ZO  
 SCALE = .3300

ALPHA ( 1 ) = -4.058 BETA ( 1 ) = -3.876 MACH = .39933 Q = 599.81 P = 1059.5 RN/L = 3.5834

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.429 -3.467  
 40.000 -3.474 -3.710

ALPHA ( 1 ) = -4.048 BETA ( 2 ) = .153 MACH = .89933 Q = 599.81 P = 1059.5 RN/L = 3.5834

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.414 -3.380  
 40.000 -3.475 -3.900

ALPHA ( 1 ) = -4.057 BETA ( 3 ) = 4.237 MACH = .89933 Q = 599.81 P = 1059.5 RN/L = 3.5834

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.344 -3.344  
 40.000 -3.599 -3.864

ALPHA ( 2 ) = .010 BETA ( 1 ) = -3.903 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5860

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.503 -3.487  
 40.000 -3.456 -3.582

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF07)

ALPHA ( 2 ) = .014 BETA ( 2 ) = .148 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5880

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3176 -.3299  
40.000 -.3230 -.3506

ALPHA ( 2 ) = .013 BETA ( 3 ) = 4.211 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5880

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3358 -.3358  
40.000 -.3495 -.3755

ALPHA ( 3 ) = 3.998 BETA ( 1 ) = -3.905 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3254 -.3386  
40.000 -.3217 -.3445

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = .135 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3254 -.3201  
40.000 -.3263 -.3328

ALPHA ( 3 ) = 3.920 BETA ( 3 ) = 4.206 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3327 -.3455  
40.000 -.3253 -.3575



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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:XE8F07)

AMES 11-073(0A148) -140A/B/C/R ORE BODY FLAP UP

ALPHA ( 4 ) = 7.946 BETA ( 1 ) = -3.900 MACH = .89857 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3320 -.3299  
40.000 -.3299 -.3377

ALPHA ( 4 ) = 7.956 BETA ( 2 ) = .143 MACH = .89857 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3329 -.3274  
40.000 -.3219 -.3437

ALPHA ( 4 ) = 7.955 BETA ( 3 ) = 4.206 MACH = .89857 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3413 -.3511  
40.000 -.3300 -.3518

ALPHA ( 5 ) = 11.987 BETA ( 1 ) = -3.885 MACH = .89947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3550 -.3507  
40.000 -.3298 -.3352

ALPHA ( 5 ) = 11.997 BETA ( 2 ) = .148 MACH = .89947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3408 -.3375  
40.000 -.3129 -.3329ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF07)

ALPHA ( 5 ) = 11.987 BETA ( 3 ) = 4.223 MACH = .99947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3279 -.3439  
40.000 -.3486 -.3644

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBFCB) ( 05 AUG 75 )

# REFERENCE DATA

GRF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.9000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.017 BETA ( 1 ) = -3.884 MACH = 1.3953 Q = 598.61 P = 439.24 RN/L = 2.9166

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3287 -1.3146  
 40.000 -1.3610 -1.3711

ALPHA ( 2 ) = -3.966 BETA ( 2 ) = .155 MACH = 1.3953 Q = 598.61 P = 439.24 RN/L = 2.9166

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3287 -1.3146  
 40.000 -1.3669 -1.3783

ALPHA ( 3 ) = -4.012 BETA ( 3 ) = 4.241 MACH = 1.3953 Q = 598.61 P = 439.24 RN/L = 2.9166

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3335 -1.3213  
 40.000 -1.3595 -1.3746

ALPHA ( 2 ) = -.027 BETA ( 1 ) = -3.899 MACH = 1.3961 Q = 598.93 P = 439.00 RN/L = 2.9179

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3319 -1.3257  
 40.000 -1.3613 -1.3711

# PARAMETRIC DATA

RUDDER = .000 SPOBRX = 85.010  
 BODYFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB 80C7 FLAP UP

(XEBF08)

ALPHA ( 2 ) = -.001 BETA ( 2 ) = .155 MACH = 1.3951 Q = 598.93 P = 439.00 RN/L = 2.9179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3415 -.3446  
40.000 -.3587 -.3747

ALPHA ( 2 ) = -.006 BETA ( 3 ) = 4.218 MACH = 1.3951 Q = 598.93 P = 439.00 RN/L = 2.9179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3454 -.3490  
40.000 -.3582 -.3733

ALPHA ( 3 ) = 3.849 BETA ( 1 ) = -3.909 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3573 -.3664  
40.000 -.3771 -.3902

ALPHA ( 3 ) = 3.967 BETA ( 2 ) = .154 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3602 -.3669  
40.000 -.3514 -.3578

ALPHA ( 3 ) = 3.885 BETA ( 3 ) = 4.208 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3535 -.3593  
40.000 -.3643 -.3857

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XESF08)

ALPHA ( 4 ) = 7.853 BETA ( 1 ) = -3.931 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9176

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3745 -1.3760

40.000 -1.3551 -1.3741

ALPHA ( 4 ) = 7.841 BETA ( 2 ) = .144 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9176

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3532 -1.3742

40.000 -1.3555 -1.3703

ALPHA ( 4 ) = 7.942 BETA ( 3 ) = 4.207 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9176

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3539 -1.3620

40.000 -1.3751 -1.3325

ALPHA ( 5 ) = 11.892 BETA ( 1 ) = -3.888 MACH = 1.3344 Q = 599.11 P = 440.19 RN/L = 2.9183

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3820 -1.3833

40.000 -1.3504 -1.3316

ALPHA ( 5 ) = 11.897 BETA ( 2 ) = .146 MACH = 1.3344 Q = 599.11 P = 440.19 RN/L = 2.9183

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3855 -1.3951

40.000 -1.3218 -1.3923

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA

IN 1-073-1

PAGE 544D

AMES 11-073(0.110)

(XEBF08)

R ORB BODY FLAP UP

ALPHA ( 5 ) = 11.893 BETA ( 3 ) = 4.224 MACH = 599.11 P = 440.18 RN/L = 2.9186

DEPENDENT V.

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3968 -.3880  
40.000 -.3939 -.4042

ALPHA ( 6 ) = 15.905 BETA ( 1 ) = -3.863 MACH = 1.3948 Q = 599.11 P = 439.94 RN/L = 2.9186

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4040 -.3689  
40.000 -.4026 -.4153

ALPHA ( 6 ) = 15.918 BETA ( 2 ) = .144 MACH = 1.3948 Q = 599.11 P = 439.94 RN/L = 2.9186

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4092 -.3815  
40.000 -.4063 -.4156

ALPHA ( 6 ) = 15.908 BETA ( 3 ) = 4.250 MACH = 1.3948 Q = 599.11 P = 439.94 RN/L = 2.9186

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4049 -.3643  
40.000 -.4138 -.4334

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5441

(XEBF09) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 EREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.882 MACH = 1.2460 Q = 599.62 P = 551.80 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.823 -3.530  
 40.000 -3.5945 -3.4029

ALPHA ( 1 ) = -4.017 BETA ( 2 ) = .155 MACH = 1.2460 Q = 599.62 P = 551.80 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.568 -3.468  
 40.000 -3.3793 -3.1955

ALPHA ( 1 ) = -4.025 BETA ( 3 ) = 4.236 MACH = 1.2460 Q = 599.62 P = 551.80 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3704 -3.3640  
 40.000 -3.3840 -3.4110

ALPHA ( 2 ) = .013 BETA ( 1 ) = -3.903 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0283

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3743 -3.3741  
 40.000 -3.3925 -3.4044

## PARAMETRIC DATA

RUDDER = .000 SPDBRX = 85.000  
 BOFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5442

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F09)

ALPHA ( 2 ) = .017 BETA ( 2 ) = .152 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0283

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3739 -.3825  
40.000 -.3839 -.4030

ALPHA ( 2 ) = .013 BETA ( 3 ) = 4.217 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0283

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3938 -.4015  
40.000 -.3845 -.4050

ALPHA ( 3 ) = 3.907 BETA ( 1 ) = -3.907 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3965 -.4053  
40.000 -.3960 -.4051

ALPHA ( 3 ) = 3.907 BETA ( 2 ) = .148 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4028 -.4128  
40.000 -.4035 -.4195

ALPHA ( 3 ) = 3.911 BETA ( 3 ) = 4.207 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4011 -.4076  
40.000 -.3990 -.4219



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5443

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF09)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.903 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0282

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4240 -.4283  
40.000 -.4150 -.4202

ALPHA ( 4 ) = 7.889 BETA ( 2 ) = .143 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0282

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4259 -.4280  
40.000 -.4229 -.4293

ALPHA ( 4 ) = 7.857 BETA ( 3 ) = 4.208 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0282

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4181 -.4162  
40.000 -.4324 -.4527

ALPHA ( 5 ) = 11.893 BETA ( 1 ) = -3.885 MACH = 1.2447 Q = 599.41 P = 552.74 RN/L = 3.0279

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4420 -.4315  
40.000 -.4399 -.4451

ALPHA ( 5 ) = 11.849 BETA ( 2 ) = .145 MACH = 1.2447 Q = 599.41 P = 552.74 RN/L = 3.0279

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4372 -.4290  
40.000 -.4448 -.4503ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5444

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF09)

ALPHA ( 5 ) = 11.848 BETA ( 3 ) = 4.220 MACH = 1.2447 Q = 599.41 P = 552.74 RN/L = 3.0279

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4443 -4460  
40.000 -4458 -4656

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5445

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F10) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -3.883 MACH = 1.0577 Q = 598.52 P = 709.53 RN/L = 3.1914

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.108 -4.136  
 40.000 -4.275 -4.442

ALPHA ( 1 ) = -4.035 BETA ( 2 ) = .155 MACH = 1.0977 Q = 598.52 P = 709.53 RN/L = 3.1914

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.103 -4.150  
 40.000 -4.136 -4.373

ALPHA ( 1 ) = -4.042 BETA ( 3 ) = 4.235 MACH = 1.0977 Q = 598.52 P = 709.53 RN/L = 3.1914

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.237 -4.299  
 40.000 -4.335 -4.660

ALPHA ( 2 ) = .020 BETA ( 1 ) = -3.899 MACH = 1.0996 Q = 598.85 P = 707.64 RN/L = 3.1885

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.075 -4.116  
 40.000 -4.290 -4.340

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5445

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F10)

ALPHA ( 2 ) = .025 BETA ( 2 ) = .152 MACH = 1.0996 Q = 598.85 P = 707.64 RN/L = 3.1885

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4022 -.4106  
40.000 -.4046 -.4297

ALPHA ( 2 ) = .023 BETA ( 3 ) = 4.214 MACH = 1.0996 Q = 598.85 P = 707.64 RN/L = 3.1885

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE (

X/LB 1.0180 1.0460

PHI

.000 -.4176 -.4262  
40.000 -.4066 -.4271

ALPHA ( 3 ) = 3.934 BETA ( 1 ) = -3.903 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4273 -.4335  
40.000 -.4261 -.4359

ALPHA ( 3 ) = 3.940 BETA ( 2 ) = .149 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4242 -.4290  
40.000 -.4232 -.4423

ALPHA ( 3 ) = 3.944 BETA ( 3 ) = 4.204 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4331 -.4347  
40.000 -.4398 -.4642

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5447

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XESF10)

ALPHA ( 4 ) = 7.892 BETA ( 1 ) = -3.899 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4594 -.4644  
40.000 -.4553 -.4596

ALPHA ( 4 ) = 7.887 BETA ( 2 ) = .144 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4511 -.4564  
40.000 -.4432 -.4583

ALPHA ( 4 ) = 7.888 BETA ( 3 ) = 4.206 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4617 -.4591  
40.000 -.4672 -.4935

ALPHA ( 5 ) = 11.921 BETA ( 1 ) = -3.873 MACH = 1.0991 Q = 599.16 P = 708.60 RN/L = 3.1919

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4515 -.4774  
40.000 -.4974 -.4929

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .146 MACH = 1.0991 Q = 599.16 P = 708.60 RN/L = 3.1919

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4694 -.4794  
40.000 -.4753 -.5093

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 544B

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F10)

ALPHA ( 5 ) = 11.928 BETA ( 3 ) = 4.214 MACH = 1.0991 0 = 599.16 P = 708.60 RN/L = 3.1919

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0150 1.0460

PHI

.000 -.4943 -.5043  
40.000 -.4950 -.5153

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5449

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF11) 1 05 AUG 75

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.6690 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0500

ALPHA ( 1 ) = -4.067 BETA ( 1 ) = -3.873 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -1.3643 -1.3626  
 40.000 -1.3686 -1.3778

ALPHA ( 1 ) = -4.047 BETA ( 2 ) = .148 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -1.3512 -1.3507  
 40.000 -1.3643 -1.3998

ALPHA ( 1 ) = -4.057 BETA ( 3 ) = 4.239 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -1.3502 -1.3493  
 40.000 -1.3829 -1.4122

ALPHA ( 2 ) = .016 BETA ( 1 ) = -3.906 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.5741

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -1.3624 -1.3681  
 40.000 -1.3609 -1.3801

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5-50

AMES 11-073(0A148) -140A/B/C/R DRB BODY FLAP UP

(XEBF11)

ALPHA ( 2 ) = .014 BETA ( 2 ) = .139 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.574

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3437 -.3451  
40.000 -.3544 -.3744

ALPHA ( 2 ) = .024 BETA ( 3 ) = 4.220 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.574

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3485 -.3453  
40.000 -.3664 -.3984

ALPHA ( 3 ) = 3.935 BETA ( 1 ) = -3.911 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3532 -.3573  
40.000 -.3511 -.3647

ALPHA ( 3 ) = 3.937 BETA ( 2 ) = .151 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3451 -.3420  
40.000 -.3484 -.3746

ALPHA ( 3 ) = 3.940 BETA ( 3 ) = 4.207 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3565 -.3570  
40.000 -.3537 -.3630



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( ANES 11-073-1 )

PAGE 5451

ANES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF11)

ALPHA ( 4 ) = 7.890 BETA ( 1 ) = -3.900 MACH = .99940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3.393 -3.343  
40.000 -3.3517 -3.3732

ALPHA ( 4 ) = 7.894 BETA ( 2 ) = .145 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3.369 -3.388  
40.000 -3.344 -3.3610

ALPHA ( 4 ) = 7.892 BETA ( 3 ) = 4.207 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3.3612 -3.3635  
40.000 -3.3533 -3.3639

ALPHA ( 5 ) = 11.932 BETA ( 1 ) = -3.884 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3.3576 -3.3572  
40.000 -3.3448 -3.3643

ALPHA ( 5 ) = 11.939 BETA ( 2 ) = .149 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3.3509 -3.3602  
40.000 -3.3421 -3.3631

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

PILOC 5452

AXES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XCEB11)

ALPHA ( 5 ) = 11.928 BETA ( 3 ) = 4.228 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

0.000 -1.3452 -1.3753  
40.000 -1.3661 -1.4007

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5453

AMES 11-073(0A148) -140A/B/C/R-OR8 BODY FLAP UP (XEBF12) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = 4.057 BETA ( 1 ) = -7.889 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8160

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3005 -.2813  
40.000 -.3358 -.3567

ALPHA ( 1 ) = 4.036 BETA ( 2 ) = -3.874 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8160

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3038 -.2933  
40.000 -.3314 -.3636

ALPHA ( 1 ) = 4.017 BETA ( 3 ) = .163 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8160

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3046 -.2868  
40.000 -.3294 -.3714

ALPHA ( 1 ) = 4.026 BETA ( 4 ) = 4.234 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8160

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2905 -.2785  
40.000 -.3412 -.3726

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 85.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5434

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP

(XEBF12)

ALPHA ( 1 ) = -4.040 BETA ( 5 ) = 8.307 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8150

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3016 -.2973  
40.000 -.3256 -.3499

ALPHA ( 2 ) = .047 BETA ( 1 ) = -7.924 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3084 -.2869  
40.000 -.3272 -.3642

ALPHA ( 2 ) = .057 BETA ( 2 ) = -3.897 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3098 -.2979  
40.000 -.3260 -.3535

ALPHA ( 2 ) = .058 BETA ( 3 ) = .160 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2978 -.2902  
40.000 -.3188 -.3538

ALPHA ( 2 ) = .052 BETA ( 4 ) = 4.215 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2964 -.2804  
40.000 -.3378 -.3754

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF12)

ALPHA ( 2 ) = .048 BETA ( 5 ) = 8.271 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3017 -.2972  
40.000 -.3305 -.3590

ALPHA ( 3 ) = 3.956 BETA ( 1 ) = -7.937 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3004 -.2971  
40.000 -.3225 -.3589

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = -3.898 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3074 -.2903  
40.000 -.3162 -.3498

ALPHA ( 3 ) = 3.957 BETA ( 3 ) = .162 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2967 -.2957  
40.000 -.3166 -.3492

ALPHA ( 3 ) = 3.954 BETA ( 4 ) = 4.202 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3038 -.2986  
40.000 -.3269 -.3549

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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ALPHA ( 3 ) = 3.960 BETA ( 5 ) = 8.252 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206  
(XEBF12)

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3139 -.3234  
40.000 -.3097 -.3451

ALPHA ( 4 ) = 7.904 BETA ( 1 ) = -7.922 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8202

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3082 -.2930  
40.000 -.3308 -.3517

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.891 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8202

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3034 -.2867  
40.000 -.3115 -.3488

ALPHA ( 4 ) = 7.912 BETA ( 3 ) = .160 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8202

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3033 -.3009  
40.000 -.3083 -.3378

ALPHA ( 4 ) = 7.910 BETA ( 4 ) = 4.204 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8202

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3106 -.3116  
40.000 -.3137 -.3456

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF12)

ALPHA ( 4 ) = 7.909 BETA ( 5 ) = 8.256 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8202

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3318 -.3330  
40.000 -.3011 -.3322

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -7.879 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2961 -.3028  
40.000 -.3169 -.3433

ALPHA ( 5 ) = 11.968 BETA ( 2 ) = -3.871 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2943 -.2827  
40.000 -.3082 -.3448

ALPHA ( 5 ) = 11.970 BETA ( 3 ) = .156 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2954 -.2811  
40.000 -.2891 -.3261

ALPHA ( 5 ) = 11.968 BETA ( 4 ) = 4.216 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2055 -.3119  
40.000 -.2907 -.3343

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF12)

ALPHA ( 5 ) = 11.959    BETA ( 5 ) = 8.279    MACH = .59660    Q = 594.43    P = 2385.7    RN/L = 4.8162

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

-.3038    -.3209  
40.000    -.2766    -.3235



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF13) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.106 BETA ( 1 ) = -3.886 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3126 -3164  
 40.000 -3390 -3530

ALPHA ( 1 ) = -4.030 BETA ( 2 ) = .154 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3136 -3181  
 40.000 -3392 -3507

ALPHA ( 1 ) = -4.030 BETA ( 3 ) = 4.249 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3168 -3218  
 40.000 -3381 -3485

ALPHA ( 2 ) = -.033 BETA ( 1 ) = -3.905 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3299 -3352  
 40.000 -3226 -3404

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF13)

ALPHA ( 2 ) = -.028 BETA ( 2 ) = .144 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE QP

X/LB 1.0180 1.0460

PHI

.000 -.3201 -.3296  
40.000 -.3298 -.3388

ALPHA ( 2 ) = -.033 BETA ( 3 ) = 4.229 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3215 -.3309  
40.000 -.3378 -.3457

ALPHA ( 3 ) = 3.851 BETA ( 1 ) = -3.904 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3284 -.3305  
40.000 -.3210 -.3350

ALPHA ( 3 ) = 3.949 BETA ( 2 ) = .141 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3182 -.3297  
40.000 -.3199 -.3229

ALPHA ( 3 ) = 3.862 BETA ( 3 ) = 4.219 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3205 -.3273  
40.000 -.3316 -.3364

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF13)

ALPHA ( 4 ) = 7.881 BETA ( 1 ) = -3.904 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3371 -.3419  
40.000 -.3300 -.3405

ALPHA ( 4 ) = 7.933 BETA ( 2 ) = .128 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3256 -.3339  
40.000 -.3292 -.3375

ALPHA ( 4 ) = 7.934 BETA ( 3 ) = 4.214 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3291 -.3379  
40.000 -.3393 -.3457

ALPHA ( 5 ) = 11.884 BETA ( 1 ) = -3.887 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9195

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3468 -.3490  
40.000 -.3383 -.3321

ALPHA ( 5 ) = 11.891 BETA ( 2 ) = .152 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3385 -.3445  
40.000 -.3475 -.3599

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF13)

ALPHA ( 5 ) = 11.887 BETA ( 3 ) = 4.229 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3387 -.3421  
40.000 -.3592 -.3675

ALPHA ( 6 ) = 15.888 BETA ( 1 ) = -3.863 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9216

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3674 -.3707  
40.000 -.3356 -.3456

ALPHA ( 6 ) = 15.885 BETA ( 2 ) = .152 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9216

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3488 -.3436  
40.000 -.3792 -.3930

ALPHA ( 6 ) = 15.903 BETA ( 3 ) = 4.263 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9216

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3705 -.3740  
40.000 -.3867 -.3880

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5463

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF14) ( 05 AUG 75 )

## REFERENCE DATA

SPEF = 2500.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SPEF = 983.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.010 BETA ( 1 ) = -3.884 MACH = 1.2452 Q = 599.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.424 -3.3517  
 40.000 -3.3726 -3.3954

ALPHA ( 1 ) = -3.944 BETA ( 2 ) = .148 MACH = 1.2452 Q = 599.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3937 -3.3460  
 40.000 -3.3631 -3.3758

ALPHA ( 1 ) = -4.009 BETA ( 3 ) = 4.237 MACH = 1.2452 Q = 599.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0190 1.0450

PHI

.000 -3.3567 -3.3621  
 40.000 -3.3703 -3.3658

ALPHA ( 2 ) = .205 BETA ( 1 ) = -3.866 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3447 -3.3625  
 40.000 -3.3509 -3.3713

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 546A

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF14)

ALPHA ( 2 ) = .220 BETA ( 2 ) = .185 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3468 -.3555  
40.000 -.3520 -.3648

ALPHA ( 2 ) = .215 BETA ( 3 ) = 4.264 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3531 -.3643  
40.000 -.3759 -.3868

ALPHA ( 3 ) = 3.903 BETA ( 1 ) = -3.872 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3539 -.3617  
40.000 -.3546 -.3617

ALPHA ( 3 ) = 3.903 BETA ( 2 ) = .184 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3522 -.3631  
40.000 -.3527 -.3664

ALPHA ( 3 ) = 3.907 BETA ( 3 ) = 4.256 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3610 -.3738  
40.000 -.3564 -.3835

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A143 -140A/B/C/R ORB BODY FLAP UP

(XEBF14)

ALPHA ( 4 ) = 7.853 BETA ( 1 ) = -3.870 MACH = 1.2465 Q = 600.88 P = 552.06 RN/L = 3.0236

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3703 -1.3801  
40.000 -1.3640 -1.3809

ALPHA ( 4 ) = 7.959 BETA ( 2 ) = .181 MACH = 1.2469 Q = 600.88 P = 552.06 RN/L = 3.0236

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3600 -1.3585  
40.000 -1.3625 -1.3740

ALPHA ( 4 ) = 7.960 BETA ( 3 ) = 4.251 MACH = 1.2469 Q = 600.88 P = 552.06 RN/L = 3.0236

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3574 -1.3756  
40.000 -1.3880 -1.3956

ALPHA ( 5 ) = 11.929 BETA ( 1 ) = -3.853 MACH = 1.2466 Q = 600.83 P = 552.29 RN/L = 3.0248

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3855 -1.3993  
40.000 -1.3756 -1.3644

ALPHA ( 5 ) = 11.937 BETA ( 2 ) = .177 MACH = 1.2466 Q = 600.83 P = 552.29 RN/L = 3.0248

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3703 -1.3782  
40.000 -1.3841 -1.3991

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5466

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF14)

ALPHA ( 51 ) = 11.932 SETA ( 3 ) = 4.267 MACH = 1.2466 Q = 600.83 P = 552.29 PNL = 3.024B

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.3910 -.3903  
40.000 -.3879 -.3927



DATE 13 FEB 76

TABULATED PPESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF15) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6000 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 930.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 3<sup>rd</sup>.000  
 BOFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

ALPHA ( 1 ) = -4.072 BETA ( 1 ) = -3.851 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3931 -.3947  
 40.000 -.3392 -.4063

ALPHA ( 1 ) = -4.070 BETA ( 2 ) = .189 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3739 -.3810  
 40.000 -.3732 -.3891

ALPHA ( 1 ) = -4.075 BETA ( 3 ) = 4.283 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4045 -.4093  
 40.000 -.3945 -.4035

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.863 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3636 -.3773  
 40.000 -.3780 -.3885

ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF15)

ALPHA ( 2 ) = -.004 BETA ( 2 ) = .183 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3735 -.3806  
40.000 -.3711 -.3849

ALPHA ( 2 ) = -.007 BETA ( 3 ) = 4.260 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3949 -.4024  
40.000 -.3826 -.4002

ALPHA ( 3 ) = 3.931 BETA ( 1 ) = -3.870 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3922 -.4046  
40.000 -.3680 -.4029

ALPHA ( 3 ) = 3.932 BETA ( 2 ) = .189 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3852 -.3943  
40.000 -.3795 -.3962

ALPHA ( 3 ) = 3.935 BETA ( 3 ) = 4.249 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4030 -.4091  
40.000 -.3949 -.4177

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F15)

ALPHA ( 4 ) = 7.534 BETA ( 1 ) = -3.865 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4224 -.4250  
40.000 -.4069 -.4245

ALPHA ( 4 ) = 7.965 BETA ( 2 ) = .179 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3885 -.3951  
40.000 -.3802 -.3954

ALPHA ( 4 ) = 7.966 BETA ( 3 ) = 4.242 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4122 -.4193  
40.000 -.4179 -.4338

ALPHA ( 5 ) = 11.925 BETA ( 1 ) = -3.850 MACH = 1.0981 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4157 -.4159  
40.000 -.4250 -.4243

ALPHA ( 5 ) = 11.933 BETA ( 2 ) = .177 MACH = 1.0981 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4096 -.4184  
40.000 -.4173 -.4149

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF15)

ALPHA ( 5 ) = 11.928 BETA ( 3 ) = 4.259 MACH = 1.0981 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4182 -.4303  
40.000 -.4251 -.4293

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5471

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F16) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 536.0890 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
BDFLAP = .000 L-ELVN = .000  
R-ELVN = .000 MACH = .900

ALPHA ( 1 ) = -4.023 BETA ( 1 ) = -3.852 MACH = .90217 Q = 601.77 P = 1056.2 RN/L = 3.5811

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2603 -.2762  
40.000 -.2478 -.2693

ALPHA ( 1 ) = -3.925 BETA ( 2 ) = .188 MACH = .90217 Q = 601.77 P = 1056.2 RN/L = 3.5811

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2492 -.2606  
40.000 -.2599 -.2918

ALPHA ( 1 ) = -3.933 BETA ( 3 ) = 4.285 MACH = .90217 Q = 601.77 P = 1056.2 RN/L = 3.5811

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2502 -.2618  
40.000 -.2845 -.2979

ALPHA ( 2 ) = .017 BETA ( 1 ) = -3.871 MACH = .89983 Q = 599.69 P = 1058.1 RN/L = 3.5748

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2599 -.2822  
40.000 -.2554 -.2654

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XEBF16)

ALPHA ( 2 ) = .043 BETA ( 2 ) = .183 MACH = .89983 Q = 599.69 P = 1058.1 RN/L = 3.5748

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2524 -.2638  
40.000 -.2586 -.2776

ALPHA ( 2 ) = .037 BETA ( 3 ) = 4.263 MACH = .89983 Q = 599.69 P = 1058.1 RN/L = 3.5748

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2507 -.2671  
40.000 -.2797 -.2928

ALPHA ( 3 ) = 3.891 BETA ( 1 ) = -3.877 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5722

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2485 -.2609  
40.000 -.2378 -.2473

ALPHA ( 3 ) = 4.016 BETA ( 2 ) = .188 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5722

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2345 -.2449  
40.000 -.2406 -.2620

ALPHA ( 3 ) = 4.017 BETA ( 3 ) = 4.257 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5722

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2441 -.2662  
40.000 -.2650 -.2748

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF16)

ALPHA ( 4 ) = 7.978 BETA ( 1 ) = -3.838 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2426 -.2665  
40.000 -.2393 -.2461

ALPHA ( 4 ) = 7.924 BETA ( 2 ) = .181 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2315 -.2471  
40.000 -.2407 -.2593

ALPHA ( 4 ) = 7.921 BETA ( 3 ) = 4.257 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2410 -.2583  
40.000 -.2479 -.2614

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.856 MACH = .90000 Q = 599.65 P = 1057.6 RN/L = 3.5745

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2557 -.2870  
40.000 -.2495 -.2562

ALPHA ( 5 ) = 11.928 BETA ( 2 ) = .182 MACH = .90000 Q = 599.65 P = 1057.6 RN/L = 3.5745

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2447 -.2599  
40.000 -.2518 -.2776

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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ALPHA ( 5 ) = 11.917    BETA ( 3 ) = 4.273    MACH = .90000    Q = 599.65    P = 1057.6    RN/L = 3.5745  
SECTION ( 1 ) BODY FLAP UPPER  
X/LB    1.0180    1.0460

(XEBF16)

PHI  
-C20    -.2792    -.2749  
40.000    -.2739    -.2782



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF17) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6000 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0500 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

ALPHA ( 1 ) = -4.112 BETA ( 1 ) = -7.854 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2510 -.2832  
 40.000 -.2496 -.2659

ALPHA ( 1 ) = -4.086 BETA ( 2 ) = -3.838 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2409 -.2834  
 40.000 -.2417 -.2637

ALPHA ( 1 ) = -4.079 BETA ( 3 ) = .201 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2349 -.2560  
 40.000 -.2399 -.2714

ALPHA ( 1 ) = -4.086 BETA ( 4 ) = 4.270 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2329 -.2580  
 40.000 -.2691 -.3123

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OF POOR QUALITY

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP

(XEBF17)

ALPHA ( 1 ) = -4.101 BETA ( 5 ) = 8.352 MACH = .59694 Q = 594.28 P = 2386.4 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2399 -.2560  
40.000 -.2947 -.3213

ALPHA ( 2 ) = .084 BETA ( 1 ) = -7.892 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2553 -.2873  
40.000 -.2361 -.2771

ALPHA ( 2 ) = .094 BETA ( 2 ) = -3.858 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2423 -.2820  
40.000 -.2336 -.2499

ALPHA ( 2 ) = .071 BETA ( 3 ) = .198 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2289 -.2552  
40.000 -.2446 -.2538

ALPHA ( 2 ) = .068 BETA ( 4 ) = 4.249 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2324 -.2524  
40.000 -.2759 -.3007

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R0 ORB BODY FLAP UP

(XEBF17)

!?

ALPHA ( 2 ) = .061 BETA ( 5 ) = 8.308 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION 1 : 11BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2314 -.2450  
40.000 -.2808 -.2991

ALPHA ( 3 ) = 4.005 BETA ( 1 ) = -7.903 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION 1 : 11BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2574 -.2900  
40.000 -.2401 -.2660

ALPHA ( 3 ) = 4.013 BETA ( 2 ) = -3.865 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION 1 : 11BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2398 -.2768  
40.000 -.2371 -.2549

ALPHA ( 3 ) = 4.008 BETA ( 3 ) = .197 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION 1 : 11BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2186 -.2325  
40.000 -.2338 -.2478

ALPHA ( 3 ) = 4.011 BETA ( 4 ) = 4.242 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION 1 : 11BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2234 -.2431  
40.000 -.2551 -.2813

DATE 13 FEB 76

## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF17)

ALPHA ( 3 ) = 4.014 BETA ( 5 ) = 8.290 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2237 -1.2463  
40.000 -1.2724 -1.2907

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -7.891 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2634 -1.2971  
40.000 -1.2352 -1.2710

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.664 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2301 -1.2527  
40.000 -1.2308 -1.2420

ALPHA ( 4 ) = 7.919 BETA ( 3 ) = .190 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2181 -1.2348  
40.000 -1.2257 -1.2452

ALPHA ( 4 ) = 7.918 BETA ( 4 ) = 4.240 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2155 -1.2340  
40.000 -1.2516 -1.2549

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF17)

ALPHA ( 4 ) = 7.914 BETA ( 5 ) = 8.294 MACH = .59550 Q = 594.32 P = 2386.1 RN/L = 4.8170

SECTION 1 ORB BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2329 -1.2506  
40.000 -1.2365 -1.3027

ALPHA ( 5 ) = 11.926 BETA ( 1 ) = -7.855 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION 1 ORB BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2331 -1.3199  
40.000 -1.2363 -1.2724

ALPHA ( 5 ) = 11.949 BETA ( 2 ) = -3.940 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION 1 ORB BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2342 -1.2647  
40.000 -1.2231 -1.2399

ALPHA ( 5 ) = 11.954 BETA ( 3 ) = .189 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION 1 ORB BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2191 -1.2402  
40.000 -1.2314 -1.2328

ALPHA ( 5 ) = 11.952 BETA ( 4 ) = 4.250 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION 1 ORB BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2275 -1.2473  
40.000 -1.2635 -1.2704

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF17)

ALPHA ( 5 ) = 11.942 BETA ( 5 ) = 8.320 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8100

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

40.000 -1.2612 -1.2798

40.000 -1.2917 -1.3060

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

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AXES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF18) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SC.FT. XMRP = 1076.6900 IN. XO  
 LREF = 404.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0380 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.050 BETA ( 1 ) = -3.854 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3284 -.3358  
 40.000 -.3300 -.3405

ALPHA ( 1 ) = -4.042 BETA ( 2 ) = .192 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3265 -.3355  
 40.000 -.3326 -.3428

ALPHA ( 1 ) = -4.051 BETA ( 3 ) = 4.285 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3238 -.3299  
 40.000 -.3318 -.3404

ALPHA ( 2 ) = -.030 BETA ( 1 ) = -3.874 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3243 -.3317  
 40.000 -.3260 -.3274

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

ORIGINAL PAGE IS  
 OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5482

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF18)

ALPHA ( 2 ) = -.025 BETA ( 2 ) = .186 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3208 -.3253  
40.000 -.3205 -.3250

ALPHA ( 2 ) = -.030 BETA ( 3 ) = 4.265 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3273 -.3349  
40.000 -.3330 -.3368

ALPHA ( 3 ) = 3.919 BETA ( 1 ) = -3.877 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 .0460

PHI

.000 -.3174 -.3221  
40.000 -.3174 -.3186

ALPHA ( 3 ) = 3.922 BETA ( 2 ) = .185 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3091 -.3127  
40.000 -.3137 -.3156

ALPHA ( 3 ) = 3.923 BETA ( 3 ) = 4.255 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3187 -.3261  
40.000 -.3247 -.3280



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF18)

ALPHA ( 4 ) = 7.792 BETA ( 1 ) = -3.867 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3279 -.3374  
-0.000 -.3187 -.3256

ALPHA ( 4 ) = 7.791 BETA ( 2 ) = .182 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3168 -.3211  
-0.000 -.3160 -.3258

ALPHA ( 4 ) = 7.919 BETA ( 3 ) = 4.252 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3247 -.3315  
-0.000 -.3325 -.3327

ALPHA ( 5 ) = 11.827 BETA ( 1 ) = -3.848 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9163

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3442 -.3515  
-0.000 -.3256 -.3469

ALPHA ( 5 ) = 11.815 BETA ( 2 ) = .187 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9163

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3289 -.3401  
-0.000 -.3455 -.3513

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148 - 140A/B/C/R ORB BODY FLAP UP (XE8F18)

ALPHA ( 5 ) = 11.810 BETA ( 3 ) = 4.268 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9163

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3463 -.3467  
40.000 -.3488 -.3512

ALPHA ( 6 ) = 15.906 BETA ( 1 ) = -3.833 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3528 -.3549  
40.000 -.3445 -.3759

ALPHA ( 6 ) = 15.920 BETA ( 2 ) = .184 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3443 -.3562  
40.000 -.3840 -.3955

ALPHA ( 6 ) = 15.910 BETA ( 3 ) = 4.299 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3596 -.3746  
40.000 -.3694 -.3635

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5485

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF19) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0650 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.048 BETA ( 1 ) = -3.848 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 ALPHA ( 2 ) = -3.974 BETA ( 2 ) = .192 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 - .3548 - .3555  
 40.000 - .3560 - .3550

ALPHA ( 1 ) = -3.974 BETA ( 2 ) = .192 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 - .3483 - .3573  
 40.000 - .3502 - .3500

ALPHA ( 1 ) = -3.984 BETA ( 3 ) = 4.283 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 - .3591 - .3643  
 40.000 - .3655 - .3705

ALPHA ( 2 ) = -.051 BETA ( 1 ) = -3.861 MACH = 1.2471 Q = 599.71 P = 550.87 RN/L = 3.0179  
 SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 - .3494 - .3563  
 40.000 - .3508 - .3525

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BOFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5486

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F19)

ALPHA ( 2 ) = -.007 BETA ( 2 ) = .182 MACH = 1.2471 Q = 599.71 P = 550.87 RN/L = 3.0179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3388 -.3449  
40.000 -.3397 -.3466

ALPHA ( 2 ) = -.013 BETA ( 3 ) = 4.263 MACH = 1.2471 Q = 599.71 P = 550.87 RN/L = 3.0179

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3612 -.3641  
40.000 -.3639 -.3684

ALPHA ( 3 ) = 3.959 BETA ( 1 ) = -3.873 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3457 -.3521  
40.000 -.3462 -.3514

ALPHA ( 3 ) = 3.906 BETA ( 2 ) = .178 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3427 -.3488  
40.000 -.3451 -.3505

ALPHA ( 3 ) = 3.928 BETA ( 3 ) = 4.253 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3527 -.3532  
40.000 -.3558 -.3582

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5487

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XE8F19)

ALPHA ( 4 ) = 7.851 BETA ( 1 ) = -3.877 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3602 -.3652  
40.000 -.3555 -.3605

ALPHA ( 4 ) = 7.971 BETA ( 2 ) = .182 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3567 -.3593  
40.000 -.3524 -.3636

ALPHA ( 4 ) = 7.972 BETA ( 3 ) = 4.253 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3589 -.3739  
40.000 -.3817 -.3814

ALPHA ( 5 ) = 11.905 BETA ( 1 ) = -3.844 MACH = 1.2483 Q = 600.41 P = 550.41 RN/L = 3.0228

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3725 -.3857  
40.000 -.3568 -.3537

ALPHA ( 5 ) = 11.915 BETA ( 2 ) = .187 MACH = 1.2483 Q = 600.41 P = 550.41 RN/L = 3.0228

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3745 -.3742  
40.000 -.3785 -.3558

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5488

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF19)

ALPHA ( 5 ) = 11.907 BETA ( 3 ) = 4.269 MACH = 1.2483 Q = 600.41 P = 550.41 RN/L = 3.0228

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0:60 1.0460

PHI

.000 -.3873 -.4004  
40.000 -.3937 -.3930

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF20) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

ALPHA ( 1 ) = -4.047 BETA ( 1 ) = -3.843 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3840 -1.3975  
 40.000 -1.3919 -1.3918

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = .189 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3708 -1.3945  
 40.000 -1.3782 -1.3905

ALPHA ( 1 ) = -3.998 BETA ( 3 ) = 4.285 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3830 -1.4029  
 40.000 -1.3882 -1.4017

ALPHA ( 2 ) = -.036 BETA ( 1 ) = -3.867 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3668 -1.3903  
 40.000 -1.3652 -1.3766

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5490

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF20)

ALPHA ( 2 ) = -.059 BETA ( 2 ) = .183 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3591 -.3623  
40.000 -.3636 -.3752

ALPHA ( 2 ) = -.052 BETA ( 3 ) = 4.261 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3681 -.3957  
40.000 -.3705 -.3821

ALPHA ( 3 ) = 3.855 BETA ( 1 ) = -3.869 MACH = 1.1013 Q = 601.26 P = 708.16 RN/L = 3.1838

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3692 -.3849  
40.000 -.3692 -.3777

ALPHA ( 3 ) = 3.924 BETA ( 2 ) = .189 MACH = 1.1013 Q = 601.26 P = 708.16 RN/L = 3.1838

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3511 -.3839  
40.000 -.3544 -.3741

ALPHA ( 3 ) = 3.921 BETA ( 3 ) = 4.251 MACH = 1.1013 Q = 601.26 P = 708.16 RN/L = 3.1838

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3677 -.3852  
40.000 -.3732 -.3935



DATE 13 FEB 76      TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

AMES 11-073(CA148) -140A/B/C/R ORB BODY FLAP UP (XEBF20)

ALPHA ( 4 ) =    7.863    BETA ( 1 ) =    -3.864    MACH = 1.1008    Q =    600.53    P =    707.91    RN/L =    3.1857

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.3767    -.3876  
40.000    -.3758    -.3827

ALPHA ( 4 ) =    7.865    BETA ( 2 ) =    .180    MACH = 1.1008    Q =    600.53    P =    707.91    RN/L =    3.1857

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.3683    -.3832  
40.000    -.3701    -.3789

ALPHA ( 4 ) =    7.863    BETA ( 3 ) =    4.247    MACH = 1.1008    Q =    600.53    P =    707.91    RN/L =    3.1857

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.3845    -.3888  
40.000    -.3850    -.3935

ALPHA ( 5 ) =    11.903    BETA ( 1 ) =    -3.846    MACH = 1.1003    Q =    600.53    P =    708.60    RN/L =    3.1882

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.3933    -.4018  
40.000    -.3980    -.4009

ALPHA ( 5 ) =    11.911    BETA ( 2 ) =    .188    MACH = 1.1003    Q =    600.53    P =    708.60    RN/L =    3.1882

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.3920    -.4024  
40.000    -.3951    -.3994

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF20)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALFA ( 5 ) = 11.905 BETA ( 3 ) = 4.263 MACH = 1.1003 Q = 600.53 P = 709.60 RN/L = 3.1982

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0480

PHI

.000 -.3331 -.4071  
40.000 -.3929 -.3995

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF21) ( 05 AUG 75 )

## REFERENCE DATA

SPRP = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LPRP = 474.9000 IN. YMRP = .0000 IN. Y0  
 BRP = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -3.849 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2935 -1.2699  
 40.000 -1.2526 -1.2552

ALPHA ( 1 ) = -4.030 BETA ( 2 ) = .192 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2922 -1.2774  
 40.000 -1.2550 -1.2593

ALPHA ( 1 ) = -4.042 BETA ( 3 ) = 4.289 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2886 -1.2910  
 40.000 -1.2703 -1.2836

ALPHA ( 2 ) = .024 BETA ( 1 ) = -3.875 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5662

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2793 -1.2785  
 40.000 -1.2574 -1.2594

## PARAMETRIC DATA

RUDDER = .000 SPCBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP

(XEBF21)

ALPHA ( 2 ) = .031 BETA ( 2 ) = .186 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5582

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

1.000 -1.2750 -1.2701  
40.000 -1.2499 -1.2555

ALPHA ( 2 ) = .021 BETA ( 3 ) = 4.265 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5582

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

1.000 -1.2394 -1.2752  
40.000 -1.2489 -1.2558

ALPHA ( 3 ) = 3.922 BETA ( 1 ) = -3.878 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5582

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

1.000 -1.2529 -1.2467  
40.000 -1.2353 -1.2475

ALPHA ( 3 ) = 3.975 BETA ( 2 ) = .198 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5582

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

1.000 -1.2515 -1.2505  
40.000 -1.2280 -1.2420

ALPHA ( 3 ) = 3.972 BETA ( 3 ) = 4.260 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5582

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

1.000 -1.2434 -1.2701  
40.000 -1.2515 -1.2499

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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ALPHA ( 4 ) = 7.906 BETA ( 1 ) = -3.870 MACH = .89943 Q = 599.41 P = 1058.5 RN/L = 3.5684  
(XE8F21)

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2563 -.2542  
40.000 -.2232 -.2430

ALPHA ( 4 ) = 8.017 BETA ( 2 ) = .186 MACH = .99943 Q = 599.41 P = 1058.5 RN/L = 3.5684

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2501 -.2444  
40.000 -.2290 -.2309

ALPHA ( 4 ) = 5.014 BETA ( 3 ) = 4.257 MACH = .89943 Q = 599.41 P = 1058.5 RN/L = 3.5684

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2262 -.2678  
40.000 -.2422 -.2431

ALPHA ( 5 ) = 11.899 BETA ( 1 ) = -3.861 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2550 -.2724  
40.000 -.2503 -.2629

ALPHA ( 5 ) = 11.955 BETA ( 2 ) = .190 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2655 -.2830  
40.000 -.2585 -.2568

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DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP (XEBF21)

ALPHA ( 5. = 11.948 BETA ( 3 ) = 4.274 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

FHI

.000 -.2352 -.2849  
40.000 -.2608 -.2706

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP ( XE8F22 ) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.5000 IN. YMRP = .0000 IN. YO  
 BREF = 535.0880 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.045 BETA ( 1 ) = -7.855 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.2478 -1.2597  
 40.000 -1.2537 -1.2715

ALPHA ( 1 ) = -3.970 BETA ( 2 ) = -3.843 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2303 -1.2730  
 40.000 -1.2460 -1.2633

ALPHA ( 1 ) = -3.957 BETA ( 3 ) = .189 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2763 -1.2552  
 40.000 -1.2455 -1.2576

ALPHA ( 1 ) = -3.955 BETA ( 4 ) = 4.271 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2656 -1.2768  
 40.000 -1.2609 -1.2675

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .030 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF22)

ALPHA ( 1 ) = -4.005 BETA ( 5 ) = 8.350 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2827 -.2896  
40.000 -.2618 -.2820

ALPHA ( 2 ) = -.025 BETA ( 1 ) = -7.896 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2451 -.2648  
40.000 -.2463 -.2618

ALPHA ( 2 ) = -.014 BETA ( 2 ) = -3.863 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2788 -.2638  
40.000 -.2448 -.2543

ALPHA ( 2 ) = .070 BETA ( 3 ) = .189 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2525 -.2597  
40.000 -.2392 -.2495

ALPHA ( 2 ) = .063 BETA ( 4 ) = 4.250 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2548 -.2647  
40.000 -.2462 -.2602



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F22)

ALPHA ( 2 ) = .058 BETA ( 5 ) = 8.310 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2744 -.2768  
40.000 -.2532 -.2547

ALPHA ( 3 ) = 3.933 BETA ( 1 ) = -7.911 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2513 -.2884  
40.000 -.2414 -.2515

ALPHA ( 3 ) = 3.935 BETA ( 2 ) = -3.866 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2315 -.2601  
40.000 -.2404 -.2485

ALPHA ( 3 ) = 3.935 BETA ( 3 ) = .172 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2568 -.2516  
40.000 -.2336 -.2369

ALPHA ( 3 ) = 4.026 BETA ( 4 ) = 4.240 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2605 -.2593  
40.000 -.2570 -.2467

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F22)

ALPHA ( 3 ) = 4.030 BETA ( 5 ) = 8.292 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2846 -.2671  
40.000 -.2503 -.2505

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -7.896 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2683 -.2899  
40.000 -.2427 -.2652

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.861 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2575 -.2523  
40.000 -.2255 -.2412

ALPHA ( 4 ) = 8.049 BETA ( 3 ) = .175 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2364 -.2471  
40.000 -.2220 -.2383

ALPHA ( 4 ) = 8.049 BETA ( 4 ) = 4.238 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2550 -.2555  
40.000 -.2280 -.2394

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

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ALPHA ( 4 ) = 8.046 BETA ( 5 ) = 8.297 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692  
 (XEBF22)

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2825 -.2685  
 40.000 -.2415 -.2534

ALPHA ( 5 ) = 11.963 BETA ( 1 ) = -7.860 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2813 -.2709  
 40.000 -.2387 -.2433

ALPHA ( 5 ) = 11.995 BETA ( 2 ) = -3.840 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2729 -.2556  
 40.000 -.2315 -.2433

ALPHA ( 5 ) = 12.000 BETA ( 3 ) = .181 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2510 -.2446  
 40.000 -.2259 -.2285

ALPHA ( 5 ) = 12.027 BETA ( 4 ) = 4.252 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2524 -.2638  
 40.000 -.2309 -.2425

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF22)

ALPHA ( 5 ) = 12.070 BETA ( 5 ) = 8.324 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2901 -.2849  
40.000 -.2560 -.2676

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(XE8F23) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0000

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.856 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.186 -3.3244  
 40.000 -3.3406 -3.3547

ALPHA ( 1 ) = -3.926 BETA ( 2 ) = .190 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.134 -3.3180  
 40.000 -3.3364 -3.3469

ALPHA ( 1 ) = -3.986 BETA ( 3 ) = 4.279 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.190 -3.3209  
 40.000 -3.3369 -3.3475

ALPHA ( 2 ) = .006 BETA ( 1 ) = -3.877 MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3297 -3.3332  
 40.000 -3.3213 -3.3358

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF23)

ALPHA ( 2 ) = .011 BETA ( 2 ) = .183 MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3212 -.3264  
40.000 -.3278 -.3381

ALPHA ( 2 ) = .023 BETA ( 3 ) = 4.256 MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3189 -.3281  
40.000 -.3329 -.3414

ALPHA ( 3 ) = 3.926 BETA ( 1 ) = -3.879 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3264 -.3326  
40.000 -.3197 -.3323

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = .183 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3146 -.3193  
40.000 -.3196 -.3217

ALPHA ( 3 ) = 3.971 BETA ( 3 ) = 4.247 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3177 -.3227  
40.000 -.3282 -.3308

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F23)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.869 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3364 -.3435  
40.000 -.3318 -.3428

ALPHA ( 4 ) = 7.908 BETA ( 2 ) = .178 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3224 -.3299  
40.000 -.3251 -.3315

ALPHA ( 4 ) = 7.872 BETA ( 3 ) = 4.245 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3248 -.3315  
40.000 -.3382 -.3408

ALPHA ( 5 ) = 11.931 BETA ( 1 ) = -3.857 MACH = 1.3942 Q = 599.92 P = 440.89 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3446 -.3529  
40.000 -.3391 -.3272

ALPHA ( 5 ) = 11.869 BETA ( 2 ) = .183 MACH = 1.3942 Q = 599.92 P = 440.89 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3392 -.3455  
40.000 -.3416 -.3534

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F23)

ALPHA ( 5 ) = 11.855 BETA ( 3 ) = 4.258 MACH = 1.3942 Q = 599.92 P = 440.89 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-1.000 -1.3334 -1.3363  
-0.000 -1.3586 -1.3634

ALPHA ( 6 ) = 15.857 BETA ( 1 ) = -3.836 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-1.000 -1.3570 -1.3553  
-0.000 -1.3542 -1.3416

ALPHA ( 6 ) = 15.871 BETA ( 2 ) = .184 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-1.000 -1.3530 -1.3463  
-0.000 -1.3760 -1.3922

ALPHA ( 6 ) = 15.861 BETA ( 3 ) = 4.289 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-1.000 -1.3583 -1.3700  
-0.000 -1.3800 -1.3860



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

JXBFB24) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2635.0000 SQ.FT. XMRP = 1070.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 955.0550 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0500

ALPHA ( 1 ) = -3.982 BETA ( 1 ) = -3.844 MACH = 1.2469 Q = 599.78 P = 551.11 RN/L = 3.0086

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3419 -1.3507  
 40.000 -1.3535 -1.3581

ALPHA ( 1 ) = -3.977 BETA ( 2 ) = .190 MACH = 1.2469 Q = 599.78 P = 551.11 RN/L = 3.0086

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3413 -1.3459  
 40.000 -1.3587 -1.3713

ALPHA ( 1 ) = -3.990 BETA ( 3 ) = 4.277 MACH = 1.2469 Q = 599.78 P = 551.11 RN/L = 3.0086

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3450 -1.3524  
 40.000 -1.3510 -1.3759

ALPHA ( 2 ) = .039 BETA ( 1 ) = -3.875 MACH = 1.2468 Q = 599.96 P = 551.34 RN/L = 3.0225

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3477 -1.3553  
 40.000 -1.3443 -1.3586

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BD FLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XESF2-)

ALPHA ( 2 ) = .042 BETA ( 2 ) = .180 MACH = 1.2468 Q = 599.95 P = 551.34 RN/L = 3.0225

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3392 -1.3477  
40.000 -1.3434 -1.3570

ALPHA ( 2 ) = .044 BETA ( 3 ) = 4.251 MACH = 1.2468 Q = 599.95 P = 551.34 RN/L = 3.0225

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3440 -1.3539  
40.000 -1.3513 -1.3710

ALPHA ( 3 ) = 3.904 BETA ( 1 ) = -3.972 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3526 -1.3579  
40.000 -1.3486 -1.3577

ALPHA ( 3 ) = 3.905 BETA ( 2 ) = .182 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3471 -1.3573  
40.000 -1.3502 -1.3594

ALPHA ( 3 ) = 3.915 BETA ( 3 ) = 4.245 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3515 -1.3517  
40.000 -1.3560 -1.3689

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF24)

ALPHA ( 4 ) = 7.877 BETA ( 1 ) = -3.867 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3595 -.3742  
40.000 -.3607 -.3733

ALPHA ( 4 ) = 7.882 BETA ( 2 ) = .178 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3552 -.3611  
40.000 -.3571 -.3673

ALPHA ( 4 ) = 7.892 BETA ( 3 ) = 4.244 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3586 -.3550  
40.000 -.3740 -.3797

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.850 MACH = 1.2463 Q = 600.28 P = 552.05 RN/L = 3.0150

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3759 -.3926  
40.000 -.3729 -.3506

ALPHA ( 5 ) = 11.928 BETA ( 2 ) = .186 MACH = 1.2463 Q = 600.28 P = 552.05 RN/L = 3.0150

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3662 -.3757  
40.000 -.3778 -.3925

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XEBF24)

ALPHA ( 5 ) = 11.922 BETA ( 3 ) = 4.256 MACH = 1.2463 Q = 600.28 P = 552.05 RN/L = 3.0160

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3842 -.3871  
40.000 -.3787 -.3799

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF25) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.988 BETA ( 1 ) = -3.842 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3812 -.3911  
 40.000 -.39-7 -.3997

ALPHA ( 1 ) = -3.982 BETA ( 2 ) = .191 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3784 -.3844  
 40.000 -.3777 -.3910

ALPHA ( 1 ) = -3.997 BETA ( 3 ) = 4.273 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3932 -.3979  
 40.000 -.3858 -.3958

ALPHA ( 2 ) = .056 BETA ( 1 ) = -3.867 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3594 -.3723  
 40.000 -.3730 -.3763

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F25)

ALPHA ( 2 ) = .058 BETA ( 2 ) = .181 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3669 -.3778  
40.000 -.3654 -.3778

ALPHA ( 2 ) = .056 BETA ( 3 ) = 4.249 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3757 -.3840  
40.000 -.3662 -.3830

ALPHA ( 3 ) = 3.948 BETA ( 1 ) = -3.871 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3775 -.3880  
40.000 -.3727 -.3939

ALPHA ( 3 ) = 3.948 BETA ( 2 ) = .177 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3705 -.3815  
40.000 -.3651 -.3812

ALPHA ( 3 ) = 3.950 BETA ( 3 ) = 4.239 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3782 -.3834  
40.000 -.3744 -.3887

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F25)

ALPHA ( 4 ) = 7.932 BETA ( 1 ) = -3.857 MACH = 1.0986 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3904 -.3977  
40.000 -.3804 -.3909

ALPHA ( 4 ) = 7.938 BETA ( 2 ) = .185 MACH = 1.0986 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0190 1.0450

PHI

.000 -.3790 -.3875  
40.000 -.3742 -.3840

ALPHA ( 4 ) = 7.937 BETA ( 3 ) = 4.238 MACH = 1.0986 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3850 -.3864  
40.000 -.3940 -.4088

ALPHA ( 5 ) = 11.970 BETA ( 1 ) = -3.845 MACH = 1.0981 Q = 599.46 P = 710.25 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3939 -.3949  
40.000 -.3999 -.3987

ALPHA ( 5 ) = 11.981 BETA ( 2 ) = .187 MACH = 1.0981 Q = 599.46 P = 710.25 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3940 -.4026  
40.000 -.4004 -.4023

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF25)

ALPHA ( 5 ) = 11.975 BETA ( 3 ) = 4.250 MACH = 1.0981 Q = 599.46 P = 710.25 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4060 -.44124  
40.000 -.4079 -.44110



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5515

(XE8F26) ( 05 AUG 75 )

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.996 BETA ( 1 ) = -3.845 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2330 -.2397  
 40.000 -.2364 -.2414

ALPHA ( 1 ) = -3.977 BETA ( 2 ) = .190 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2341 -.2522  
 40.000 -.2379 -.2615

ALPHA ( 1 ) = -3.985 BETA ( 3 ) = 4.276 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2336 -.2493  
 40.000 -.2516 -.2682

ALPHA ( 2 ) = .061 BETA ( 1 ) = -3.869 MACH = .89877 Q = 599.18 P = 1059.7 RN/L = 3.5651

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2359 -.2550  
 40.000 -.2364 -.2510

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BDELAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

DATE 13 FEB 76

## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5516

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F26)

ALPHA ( 2 ) = .067 BETA ( 2 ) = .174 MACH = .89877 Q = 599.18 P = 1059.7 RN/L = 3.5651

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2228 -.2224  
40.000 -.2232 -.2371

ALPHA ( 2 ) = .063 BETA ( 3 ) = 4.252 MACH = .89877 Q = 599.18 P = 1059.7 RN/L = 3.5651

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2234 -.2379  
40.000 -.2419 -.2474

ALPHA ( 3 ) = 3.954 BETA ( 1 ) = -3.877 MACH = .89787 Q = 598.42 P = 1060.5 RN/L = 3.5652

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2268 -.2297  
40.000 -.2237 -.2247

ALPHA ( 3 ) = 3.955 BETA ( 2 ) = .186 MACH = .89787 Q = 598.42 P = 1060.5 RN/L = 3.5652

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2329 -.2137  
40.000 -.2146 -.2156

ALPHA ( 3 ) = 3.953 BETA ( 3 ) = 4.243 MACH = .89787 Q = 598.42 P = 1060.5 RN/L = 3.5652

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2117 -.2189  
40.000 -.2235 -.2353

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5517

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP UP (XE8F26)

ALPHA ( 4 ) = 7.938 BETA ( 1 ) = -3.870 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2187 -1.2146  
40.000 -1.2141 -1.2127

ALPHA ( 4 ) = 7.938 BETA ( 2 ) = .179 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2099 -1.2099  
40.000 -1.2197 -1.2235

ALPHA ( 4 ) = 7.033 BETA ( 3 ) = 4.243 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2237 -1.2229  
40.000 -1.2260 -1.2284

ALPHA ( 5 ) = 11.953 BETA ( 1 ) = -3.854 MACH = .89857 Q = 599.22 P = 1060.2 RN/L = 3.5673

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2333 -1.2406  
40.000 -1.2247 -1.2297

ALPHA ( 5 ) = 11.955 BETA ( 2 ) = .183 MACH = .89857 Q = 599.22 P = 1060.2 RN/L = 3.5673

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2345 -1.2470  
40.000 -1.2432 -1.2498

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5518

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF26)

ALPHA ( 5 ) = 11.949 BETA ( 3 ) = 4.257 MACH = .99857 Q = 599.22 P = 1060.2 RN/L = 3.5573

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2434 -.2436  
40.000 -.2429 -.2557

DATE 13 FEB 75

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 5519

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP  
(XEBF27) ( 05 AUG 75 )

## REFERENCE DATA

SPREF = 2820.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 477.6000 IN. YMRP = .0000 IN. Y0  
 BPREF = 935.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.956 BETA ( 1 ) = -7.853 MACH = .59658 Q = 594.56 P = 336.3 RN/L = 4.8484

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2259 -1.2556  
 -0.000 -1.2234 -1.2419

ALPHA ( 2 ) = -3.959 BETA ( 2 ) = -3.841 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2175 -1.2418  
 -0.000 -1.2170 -1.2294

ALPHA ( 3 ) = -3.949 BETA ( 3 ) = .187 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2153 -1.2385  
 -0.000 -1.2228 -1.2407

ALPHA ( 4 ) = -3.957 BETA ( 4 ) = 4.263 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2136 -1.2298  
 -0.000 -1.2240 -1.2582

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5520

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF27)

ALPHA ( 1 ) = -3.972 BETA ( 5 ) = 8.340 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2160 -1.2300  
40.000 -1.2502 -1.2888

ALPHA ( 2 ) = .056 BETA ( 1 ) = -7.886 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2242 -1.2489  
40.000 -1.2159 -1.2408

ALPHA ( 2 ) = .065 BETA ( 2 ) = -3.860 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2139 -1.2463  
40.000 -1.2125 -1.2332

ALPHA ( 2 ) = .070 BETA ( 3 ) = .184 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2051 -1.2211  
40.000 -1.2158 -1.2370

ALPHA ( 2 ) = .066 BETA ( 4 ) = 4.247 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2090 -1.2216  
40.000 -1.2441 -1.2524

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

PAGE 5521

AXES 11-073-0/148) -140A/B/C/R ORB BODY FLAP UP

(XESF20)

ALPHA ( 2 ) = .000 BETA ( 5 ) = 8.305 MACH = .59538 Q = 593.49 P = 2385.5 RN/L = 4.8432

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2153 -1.2253  
40.000 -1.2554 -1.2715

ALPHA ( 3 ) = 3.957 BETA ( 1 ) = -7.887 MACH = .59608 Q = 593.49 P = 2385.0 RN/L = 4.8432

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2250 -1.2601  
40.000 -1.2153 -1.2324

ALPHA ( 3 ) = 3.981 BETA ( 2 ) = -3.863 MACH = .59508 Q = 593.49 P = 2385.0 RN/L = 4.8432

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2391 -1.2372  
40.000 -1.2334 -1.2227

ALPHA ( 3 ) = 3.981 BETA ( 3 ) = .189 MACH = .59508 Q = 593.49 P = 2385.0 RN/L = 4.8432

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.1933 -1.2035  
40.000 -1.2090 -1.2043

ALPHA ( 3 ) = 3.978 BETA ( 4 ) = 4.237 MACH = .59608 Q = 593.49 P = 2385.0 RN/L = 4.8432

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.2053 -1.2168  
40.000 -1.2249 -1.2458

DATE 13 FEB 70

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5522

AMES 11-073(0A148) -14CA13/C/R CR3 BODY FLAP UP

REFE

ALPHA ( 3 ) = 3.980 BETA ( 5 ) = 8.292 MACH = .59608 Q = 593.13 P = 2385.0 RN L = 4.8432

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2095 -1.2317  
40.000 -1.2474 -1.2340

ALPHA ( 4 ) = 7.936 BETA ( 1 ) = -7.885 MACH = .59590 Q = 593.13 P = 2385.0 RN L = 4.8429

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2297 -1.2336  
40.000 -1.2173 -1.2338

ALPHA ( 4 ) = 7.944 BETA ( 2 ) = -3.857 MACH = .59590 Q = 593.13 P = 2385.0 RN L = 4.8429

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2113 -1.2142  
40.000 -1.2006 -1.2157

ALPHA ( 4 ) = 8.045 BETA ( 3 ) = .182 MACH = .59590 Q = 593.13 P = 2385.0 RN L = 4.8429

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.1937 -1.2018  
40.000 -1.2032 -1.2197

ALPHA ( 4 ) = 8.043 BETA ( 4 ) = 4.239 MACH = .59590 Q = 593.13 P = 2385.0 RN L = 4.8429

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2058 -1.2132  
40.000 -1.2197 -1.2275



DATE 13 FEB 79

ABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5523

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF27)

ALPHA ( 4 ) = 8.041 BETA ( 5 ) = 8.297 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2104 -.2359  
40.000 -.2358 -.2458

ALPHA ( 5 ) = 11.909 BETA ( 1 ) = -7.850 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2249 -.2654  
40.000 -.2316 -.2356

ALPHA ( 5 ) = 11.929 BETA ( 2 ) = -3.836 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2108 -.2404  
40.000 -.2090 -.2182

ALPHA ( 5 ) = 11.930 BETA ( 3 ) = .181 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2005 -.2165  
40.000 -.2122 -.2222

ALPHA ( 5 ) = 11.930 BETA ( 4 ) = 4.251 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2042 -.2281  
40.000 -.2289 -.2452

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5524

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F27)

ALPHA ( 5 ) = 11.920    BETA ( 5 ) = 8.317    MACH = .59845    Q = 594.33    P = 2386.5    KN/L = 4.8458

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0150    1.0460

PHI

      .000    -.2323    -.2496  
      40.000    -.2427    -.2614

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5525

(XEF28) ( 05 AUG 75 )  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.0000 IN. YMRP = .0000 IN. YO  
 SREF = 935.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.978 BETA ( 1 ) = -3.855 MACH = 1.3927 Q = 593.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3323 -.3271  
 40.000 -.3502 -.3532

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = .185 MACH = 1.3927 Q = 599.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3223 -.3207  
 40.000 -.3569 -.3801

ALPHA ( 1 ) = -3.978 BETA ( 3 ) = 4.270 MACH = 1.3927 Q = 599.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3324 -.3321  
 40.000 -.3527 -.3535

ALPHA ( 2 ) = -.069 BETA ( 1 ) = -3.876 MACH = 1.3934 Q = 600.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3288 -.3288  
 40.000 -.3564 -.3722

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-10 )

PAGE 5526

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF28)

IG

ALPHA ( 2 ) = -.045 BETA ( 2 ) = .182 MACH = 1.3934 Q = 600.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3333 -.3373  
40.000 -.3558 -.3697

ALPHA ( 2 ) = -.049 BETA ( 3 ) = 4.247 MACH = 1.3934 Q = 600.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3405 -.3490  
40.000 -.3589 -.3682

ALPHA ( 3 ) = 3.888 BETA ( 1 ) = -3.879 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3388 -.3431  
40.000 -.3569 -.3696

ALPHA ( 3 ) = 3.892 BETA ( 2 ) = .179 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3430 -.3510  
40.000 -.3474 -.3500

ALPHA ( 3 ) = 3.895 BETA ( 3 ) = 4.241 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3420 -.3502  
40.000 -.3557 -.3575

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5527

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF28)

ALPHA ( 4 ) = 7.940 BETA ( 1 ) = -3.670 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3453 -1.3484  
40.000 -1.3649 -1.3640

ALPHA ( 4 ) = 7.946 BETA ( 2 ) = .176 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3407 -1.3426  
40.000 -1.3597 -1.3589

ALPHA ( 4 ) = 7.949 BETA ( 3 ) = 4.238 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2974 -1.3455  
40.000 -1.3423 -1.3503

ALPHA ( 5 ) = 11.853 BETA ( 1 ) = -3.856 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3508 -1.3492  
40.000 -1.3714 -1.3619

ALPHA ( 5 ) = 11.873 BETA ( 2 ) = .179 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2625 -1.3703  
40.000 -1.3530 -1.3715

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5528

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP

(XEBF28)

ALPHA ( 5 ) = 11.870 BETA ( 3 ) = 4.256 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3855 -1.3848  
40.000 -1.3420 -1.3502

ALPHA ( 6 ) = 15.854 BETA ( 1 ) = -3.831 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3732 -1.3655  
40.000 -1.3535 -1.3878

ALPHA ( 5 ) = 15.858 BETA ( 2 ) = .178 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3971 -1.3895  
40.000 -1.3488 -1.3502

ALPHA ( 6 ) = 15.859 BETA ( 3 ) = 4.283 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3936 -1.3921  
40.000 -1.3680 -1.3881

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5529

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF29) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = 1.250

ALPHA ( 1 ) = -3.985 BETA ( 1 ) = -3.845 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0225

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3544 -.3698  
 40.000 -.3337 -.4159

ALPHA ( 1 ) = -3.967 BETA ( 2 ) = .185 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0225

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3509 -.3607  
 40.000 -.4032 -.4214

ALPHA ( 1 ) = -3.974 BETA ( 3 ) = 4.269 MACH = 1.2451 Q = 599.59 P = 552.51 RN/L = 3.0225

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3729 -.3691  
 40.000 -.4485 -.4142

ALPHA ( 2 ) = -.035 BETA ( 1 ) = -3.871 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3674 -.3757  
 40.000 -.3915 -.4047

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF29)

ALPHA ( 2 ) = -.027 BETA ( 2 ) = .182 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3718 -.3749  
40.000 -.3900 -.4044

ALPHA ( 2 ) = -.032 BETA ( 3 ) = 4.246 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3765 -.3833  
40.000 -.3997 -.4031

ALPHA ( 3 ) = 3.922 BETA ( 1 ) = -3.869 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3808 -.3988  
40.000 -.3983 -.4095

ALPHA ( 3 ) = 3.922 BETA ( 2 ) = .180 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3832 -.3924  
40.000 -.3953 -.4031

ALPHA ( 3 ) = 3.925 BETA ( 3 ) = 4.237 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3758 -.3793  
40.000 -.3952 -.4103



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5531

AMES 11-073(0A148) -140A/R/C/R ORB BODY FLAP UP

(XE8F29)

ALPHA ( 4 ) = 7.930 BETA ( 1 ) = -3.870 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3355 -1.4022  
40.000 -1.4175 -1.4192

ALPHA ( 4 ) = 7.994 BETA ( 2 ) = .176 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3355 -1.3939  
40.000 -1.4084 -1.4191

ALPHA ( 4 ) = 7.995 BETA ( 3 ) = 4.240 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3330 -1.3999  
40.000 -1.3685 -1.4119

ALPHA ( 5 ) = 11.923 BETA ( 1 ) = -3.851 MACH = 1.2447 Q = 599.71 P = 552.98 RN/L = 3.0237

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4033 -1.4042  
40.000 -1.4198 -1.4492

ALPHA ( 5 ) = 11.934 BETA ( 2 ) = .177 MACH = 1.2447 Q = 599.71 P = 552.98 RN/L = 3.0237

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4005 -1.4023  
40.000 -1.4099 -1.4357

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DATE 13 FEB 76

FABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5532

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP  
(XEBF29)

ALPHA ( 5 ) = 11.927    BETA ( 3 ) = 4.253    MACH = 1.2447    Q = 599.71    P = 552.98    RN/L = 3.0237

SECTION ( 1 ) BODY FLAP DOWN

DEPENDENT VARIABLE CP

X/LE    1.3180    1.0460

FHI

40.000    -0.001    -0.4188  
40.000    -0.000    -0.4152

DATE 13 FEB 76

TASULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5533

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

INBEF30) ( 05 AUG 75 )

## REFERENCE DATA

SECT = 8590.0000 SQ.FT.    XMRP = 1075.6800 IN. X0  
 YMRP = 1474.8000 IN.    YMRP = 1.0000 IN. Y0  
 ZMRP = 339.0090 IN.    ZMRP = 375.0000 IN. Z0  
 SCALE = 1.000

## PARAMETRIC DATA

RUDDER = -10.000    SPDBRK = 35.000  
 BDCLAP = 16.300    L-ELVN = 10.000  
 R-ELVN = .000    N104 = 1.100

ALPHA ( 1 ) = -3.934    BETA ( 1 ) = -3.852    MACH = 1.0997    Q = 600.21    P = 709.06    RN/L = 3.1909

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000    -1.4208    -1.4501  
 40.000    -1.4533    -1.4527

ALPHA ( 2 ) = -3.995    BETA ( 2 ) = .190    MACH = 1.0997    Q = 600.21    P = 709.06    RN/L = 3.1908

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000    -1.4180    -1.4272  
 40.000    -1.4400    -1.4423

ALPHA ( 3 ) = -3.992    BETA ( 3 ) = 4.268    MACH = 1.0997    Q = 600.21    P = 709.06    RN/L = 3.1908

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000    -1.4248    -1.4255  
 40.000    -1.4454    -1.4534

ALPHA ( 2 ) = -3.020    BETA ( 1 ) = -3.0965    MACH = 1.0986    Q = 599.48    P = 709.54    RN/L = 3.1986

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000    -1.4277    -1.4381  
 40.000    -1.4325    -1.4537

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5534

AMES 11-073(0A148) -140A/B/C/R ORS BODY FLAP UP

(XEBF30)

1A

ALPHA ( 2 ) = -0.04 BETA ( 2 ) = .187 MACH = 1.0986 Q = 599.48 P = 709.54 RN/L = 3.1896

SECTION 1: BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -0.152 -0.277  
40.000 -0.327 -0.474

ALPHA ( 2 ) = -0.07 BETA ( 3 ) = 4.244 MACH = 1.0986 Q = 599.48 P = 709.54 RN/L = 3.1896

SECTION 1: BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -0.127 -0.419  
40.000 -0.456 -0.446

ALPHA ( 3 ) = 3.959 BETA ( 1 ) = -3.869 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION 1: BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -0.428 -0.428  
40.000 -0.435 -0.560

ALPHA ( 3 ) = 3.959 BETA ( 2 ) = .177 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION 1: BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -0.432 -0.419  
40.000 -0.433 -0.476

ALPHA ( 3 ) = 3.960 BETA ( 3 ) = 4.234 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION 1: BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -0.413 -0.416  
40.000 -0.426 -0.449

DATE 13 FEB 76

ABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

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AXES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF30)

ALPHA ( 4 ) = 8.035 BETA ( 1 ) = -3.862 MACH = 1.0955 Q = 599.52 P = 709.77 R/V L = 3.1893

SECTION ( 1 ) BODY FLAP UPPER

X LB 1.0180 1.0460

PHI

.000 1.4533 1.4575  
40.000 1.4533 1.4519

ALPHA ( 4 ) = 8.041 BETA ( 2 ) = .181 MACH = 1.0985 Q = 599.52 P = 709.77 R/V L = 3.1893

SECTION ( 1 ) BODY FLAP UPPER

X LB 1.0180 1.0460

PHI

.000 1.4533 1.4535  
40.000 1.4547 1.4537

ALPHA ( 4 ) = 8.040 BETA ( 3 ) = 4.238 MACH = 1.0985 Q = 599.52 P = 709.77 R/V L = 3.1893

SECTION ( 1 ) BODY FLAP UPPER

X LB 1.0180 1.0460

PHI

.000 1.4504 1.4563  
40.000 1.4563 1.4563

ALPHA ( 5 ) = 11.975 BETA ( 1 ) = -3.843 MACH = 1.0970 Q = 599.10 P = 711.19 R/V L = 3.1892

SECTION ( 1 ) BODY FLAP UPPER

X LB 1.0180 1.0460

PHI

.000 1.4533 1.4521  
40.000 1.4521 1.4577

ALPHA ( 5 ) = 11.965 BETA ( 2 ) = .181 MACH = 1.0970 Q = 599.10 P = 711.19 R/V L = 3.1892

SECTION ( 1 ) BODY FLAP UPPER

X LB 1.0180 1.0460

PHI

.000 1.4504 1.4508  
40.000 1.4540 1.4573

DATE 12 FEB 73

TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

PAGE 5558

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

NEEDED

ALPHA (°) = 11.077 BETA (°) = 0.250 MACH = 1.0371 Q = 599.10 P = 711.19 SFC = 3.1992

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

VAL 1.0130 1.0490

PHI

1.000 1.4338 1.4703

1.0100 1.4338 1.4495

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5537

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F31) ( 05 AUG 75 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.0600 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0332

PARAMETRIC DATA  
RUDDER = -10.000 SPOBRK = 35.000  
BDFLAP = 15.300 L-ELVN = 10.000  
R-ELVN = .000 MACH = .900

ALPHA ( 1 ) = -3.977 BETA ( 1 ) = -3.952 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2837 -1.2894  
40.000 -1.3159 -1.3076

ALPHA ( 1 ) = -3.975 BETA ( 2 ) = .187 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3231 -1.3240  
40.000 -1.3282 -1.3354

ALPHA ( 1 ) = -3.995 BETA ( 3 ) = 4.269 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3213 -1.3139  
40.000 -1.3336 -1.3327

ALPHA ( 2 ) = -.002 BETA ( 1 ) = -3.870 MACH = .89780 Q = 598.63 P = 1060.9 RN/L = 3.5706

## SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2998 -1.2912  
40.000 -1.3287 -1.3287

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP UP

(XEBF31)

ALPHA ( 2 ) = .000 BETA ( 2 ) = .184 MACH = .89780 Q = 598.63 P = 1050.9 RN/L = 3.5706

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3015 -.3083  
40.000 -.3206 -.3303

ALPHA ( 2 ) = -.010 BETA ( 3 ) = 4.247 MACH = .89780 Q = 598.63 P = 1050.9 RN/L = 3.5706

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3176 -.3176  
40.000 -.3247 -.3342

ALPHA ( 3 ) = 3.984 BETA ( 1 ) = -3.872 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2969 -.3123  
40.000 -.3066 -.3334

ALPHA ( 3 ) = 0.983 BETA ( 2 ) = .184 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2921 -.3106  
40.000 -.3148 -.3391

ALPHA ( 3 ) = 0.979 BETA ( 1 ) = 4.243 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3103 -.3108  
40.000 -.3108 -.3165



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF31)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 8.057 BETA ( 1 ) = -3.860 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2953 -.3078  
40.000 -.3055 -.3247

ALPHA ( 4 ) = 8.064 BETA ( 2 ) = .187 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3157 -.3171  
40.000 -.3224 -.3171

ALPHA ( 4 ) = 3.059 BETA ( 3 ) = 4.245 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3241 -.3088  
40.000 -.3177 -.3147

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.854 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2926 -.2992  
40.000 -.2690 -.3035

ALPHA ( 5 ) = 11.990 BETA ( 2 ) = .184 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2915 -.3000  
40.000 -.2903 -.3000

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DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AYES 11-073-1 )

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AYES 11-073(0A148) -140A/B/C/R ORE BODY FLAP UP

(XEBF31)

ALPHA ( 5 ) = 11.975 BETA ( 3 ) = 4.255 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3020 -.3136  
40.000 -.2937 -.3204

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA  
 RUDDER = -10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = .E00

ALPHA ( 1 ) = -4.052 BETA ( 1 ) = -7.850 MACH = .59664 Q = 594.68 P = 2386.3 RN/L = 4.8170

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -2613 -2755

40.000 -2330 -2486

ALPHA ( 1 ) = -4.036 BETA ( 2 ) = -3.835 MACH = .59664 Q = 594.68 P = 2386.3 RN/L = 4.8170

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -2634 -2703

40.000 -2342 -2658

ALPHA ( 1 ) = -4.020 BETA ( 3 ) = .192 MACH = .59664 Q = 594.68 P = 2386.3 RN/L = 4.8170

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -2443 -2469

40.000 -2675 -3183

ALPHA ( 1 ) = -4.028 BETA ( 4 ) = 4.273 MACH = .59664 Q = 594.68 P = 2386.3 RN/L = 4.8170

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -2381 -2473

40.000 -2704 -3066

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AYES 11-073-1 )

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AYES 11-073(0A148) -140A/B/C/R ORG BODY FLAP UP

(XEBF32)

ALPHA ( 1 ) = -.045 BETA ( 5 ) = 8.346 MACH = .59664 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	-.2536
.000	-.2559
.000	-.2600
.000	-.3206

ALPHA ( 2 ) = .034 BETA ( 1 ) = -7.883 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	-.2561
.000	-.2651
.000	-.2274
.000	-.2606

ALPHA ( 2 ) = .043 BETA ( 2 ) = -3.857 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	-.2523
.000	-.2634
.000	-.2454
.000	-.2702

ALPHA ( 2 ) = .045 BETA ( 3 ) = .186 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	-.2501
.000	-.2570
.000	-.2799
.000	-.3107

ALPHA ( 2 ) = .041 BETA ( 4 ) = 4.251 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	-.2615
.000	-.2738
.000	-.2893
.000	-.3068

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 1 J73-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEF32)

ALPHA ( 2 ) = .035 BETA ( 5 ) = 8.312 MACH = .59522 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2674 -.2697  
40.000 -.2960 -.3267

ALPHA ( 3 ) = 4.014 BETA ( 1 ) = -7.879 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2369 -.2415  
40.000 -.2565 -.2865

ALPHA ( 3 ) = 4.016 BETA ( 2 ) = -3.855 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2478 -.2475  
40.000 -.2691 -.3013

ALPHA ( 3 ) = 4.015 BETA ( 3 ) = .196 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2604 -.2817  
40.000 -.2789 -.3035

ALPHA ( 3 ) = 4.015 BETA ( 4 ) = 4.243 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2743 -.2890  
40.000 -.2996 -.3185

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5544

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF32)

ALPHA ( 3 ) = 4.018 BETA ( 5 ) = 8.295 MACH = .59602 Q = 594.21 P = 2386.4 RN/L = 4.8147

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2701 -.2760  
40.000 -.2997 -.3155

ALPHA ( 4 ) = 8.080 BETA ( 1 ) = -7.877 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2422 -.2507  
40.000 -.2670 -.3005

ALPHA ( 4 ) = 8.089 BETA ( 2 ) = -3.848 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2511 -.2709  
40.000 -.2589 -.2771

ALPHA ( 4 ) = 8.087 BETA ( 3 ) = .188 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2627 -.2799  
40.000 -.2717 -.2965

ALPHA ( 4 ) = 8.086 BETA ( 4 ) = 4.243 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2718 -.3001  
40.000 -.2963 -.3178

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(X58F32)

ALPHA ( 4 ) = 8.082 BETA ( 5 ) = 8.301 MACH = .59626 0 = 594.21 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.2822 -.2864  
40.000 -.3084 -.3337

ALPHA ( 5 ) = 12.017 BETA ( 1 ) = -7.830 MACH = .59626 0 = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2428 -.2690  
40.000 -.2699 -.2959

ALPHA ( 5 ) = 12.037 BETA ( 2 ) = -3.825 MACH = .59626 0 = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2592 -.2573  
40.000 -.2651 -.2854

ALPHA ( 5 ) = 12.038 BETA ( 3 ) = .185 MACH = .59626 0 = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2462 -.2533  
40.000 -.2512 -.2774

ALPHA ( 5 ) = 12.033 BETA ( 4 ) = 4.256 MACH = .59626 0 = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2565 -.2759  
40.000 -.2728 -.3135

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 12.024 BETA ( 5 ) = 8.318 MACH = .59626 0 = 593.97 P

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2447 -.2676  
40.000 -.2951 -.3312

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(YEBF32)

2386.7 RN/L = 4.8175

8

11



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF33) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 47.8000 IN. YMRP = .0000 IN. YO  
BREF = 136.6800 IN. ZMRP = 375.0000 IN. ZO  
SCALE = 1.0300

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = 10.000 MACH = 1.400

ALPHA ( 1 ) = -4.110 BETA ( 1 ) = -3.848 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3236 -.3224  
40.000 -.3458 -.3544

ALPHA ( 1 ) = -4.105 BETA ( 2 ) = .195 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3168 -.3163  
40.000 -.3452 -.3582

ALPHA ( 1 ) = -4.114 BETA ( 3 ) = 4.277 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3297 -.3239  
40.000 -.3638 -.3702

ALPHA ( 2 ) = -.049 BETA ( 1 ) = -3.866 MACH = 1.3944 Q = 599.11 P = 440.18 RN/L = 2.9098

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3326 -.3445  
40.000 -.3296 -.3393

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TABULATED PRESSURE DATA - 0A148 (AVES 11-073-1)

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AVES 11-073(0A148) - 140A/B/C/R OR8 BODY FLAP UP

(XEBF33)

ALPHA ( 2 ) = -.046 BETA ( 2 ) = .181 MACH = 1.3944 Q = 599.11 P = 440.18 RN/L = 2.9098

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB .0180 1.0460

PHI

.000 -.3256 -.3334  
40.000 -.3249 -.3355

ALPHA ( 2 ) = -.050 BETA ( 3 ) = 4.256 MACH = 1.3944 Q = 599.11 P = 440.18 RN/L = 2.9098

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3369 -.3402  
40.000 -.3265 -.3376

ALPHA ( 3 ) = 3.895 BETA ( 1 ) = -3.869 MACH = 1.3948 Q = 599.42 P = 440.18 RN/L = 2.9147

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3443 -.3533  
40.000 -.3370 -.3424

ALPHA ( 3 ) = 3.895 BETA ( 2 ) = .190 MACH = 1.3948 Q = 599.42 P = 440.18 RN/L = 2.9147

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3374 -.3447  
40.000 -.3213 -.3265

ALPHA ( 3 ) = 3.296 BETA ( 3 ) = 4.246 MACH = 1.3948 Q = 599.42 P = 440.18 RN/L = 2.9147

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3391 -.3505  
40.000 -.3224 -.3328

TABULATED PRESSURE DATA - 0A148 ( AMES (11-073-1) )

(XEBF33)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 7.947 BETA ( 1 ) = -3.865 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9145

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.482 -3.371  
40.000 -3.362 -3.3752

ALPHA ( 4 ) = 7.946 BETA ( 2 ) = .185 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9146

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.486 -3.3512  
40.000 -3.349 -3.3460

ALPHA ( 4 ) = 7.944 BETA ( 3 ) = 4.238 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9146

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.481 -3.3500  
40.000 -3.346 -3.3426

ALPHA ( 5 ) = 11.859 BETA ( 1 ) = -3.851 MACH = 1.3955 Q = 599.73 P = 439.74 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.580 -3.3725  
40.000 -3.3749 -3.3907

ALPHA ( 5 ) = 11.865 BETA ( 2 ) = .189 MACH = 1.3955 Q = 599.73 P = 439.94 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.491 -3.3519  
40.000 -3.3661 -3.3651

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF33)

ALPHA ( 5 ) = 11.860 BETA ( 3 ) = 4.253 MACH = 1.3955 Q = 599.73 P = 439.94 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3588 -.3548  
40.000 -.3633 -.3838

ALPHA ( 6 ) = 15.949 BETA ( 1 ) = -3.830 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3782 -.3815  
40.000 -.3857 -.4089

ALPHA ( 6 ) = 15.859 BETA ( 2 ) = .186 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3794 -.3771  
40.000 -.3981 -.4100

ALPHA ( 6 ) = 15.851 BETA ( 3 ) = 4.283 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3832 -.3881  
40.000 -.3957 -.4082

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF34) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = +74.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0000 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.064 BETA ( 1 ) = -3.845 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3649 -.3640  
 40.000 -.3808 -.3907

ALPHA ( 1 ) = -4.041 BETA ( 2 ) = .192 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3524 -.3572  
 40.000 -.3723 -.3831

ALPHA ( 1 ) = -4.051 BETA ( 3 ) = 4.275 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3658 -.3774  
 40.000 -.3682 -.3824

ALPHA ( 2 ) = -.032 BETA ( 1 ) = -3.867 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3788 -.3885  
 40.000 -.3653 -.3738

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 35.000  
 BOFLAP = 16.300 L-ELVN = .000  
 R-ELVN = 10.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF34)

ALPHA ( 2 ) = -.029 BETA ( 2 ) = .184 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3693 -.3773  
40.000 -.3594 -.3712

ALPHA ( 2 ) = -.035 BETA ( 3 ) = 4.251 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3863 -.3979  
40.000 -.3528 -.3629

ALPHA ( 3 ) = 3.926 BETA ( 1 ) = -3.871 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3873 -.3916  
40.000 -.3783 -.3854

ALPHA ( 3 ) = 3.924 BETA ( 2 ) = .180 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3866 -.3946  
40.000 -.3646 -.3695

ALPHA ( 3 ) = 3.934 BETA ( 3 ) = 4.244 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3898 -.4039  
40.000 -.3583 -.3680

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF 39)

ALPHA ( 4 ) = 7.988 BETA ( 1 ) = -3.866 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3873 -.3659  
40.000 -.4041 -.4211

ALPHA ( 4 ) = 7.987 BETA ( 2 ) = .186 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3849 -.3918  
40.000 -.3894 -.4131

ALPHA ( 4 ) = 7.988 BETA ( 3 ) = 4.237 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4070 -.4176  
40.000 -.3768 -.3950

ALPHA ( 5 ) = 11.921 BETA ( 1 ) = -3.850 MACH = 1.2455 Q = 599.75 P = 552.28 RN/L = 3.0144

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4036 -.4067  
40.000 -.4166 -.4378

ALPHA ( 5 ) = 11.932 BETA ( 2 ) = .189 MACH = 1.2455 Q = 599.75 P = 552.28 RN/L = 3.0144

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3917 -.3934  
40.000 -.4090 -.4383

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AYES 11-073-1 )

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(XEBF34)

AYES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 11.924 BETA ( 3 ) = 4.253 MACH = 1.2455 Q = 599.75 P = 552.28 RN/L = 3.0144

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
0.000  
40.000

-.3948 -.4081  
-.4123 -.4495



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF35) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
REF = 474.8000 IN. YMRP = .0000 IN. YO  
ZREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.064 BETA ( 1 ) = -3.846 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.180 -4.218  
40.000 -4.064 -4.135

ALPHA ( 1 ) = -4.062 BETA ( 2 ) = .195 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.216 -4.316  
40.000 -3.989 -4.096

ALPHA ( 1 ) = -4.062 BETA ( 3 ) = 4.274 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.291 -4.436  
40.000 -3.977 -4.045

ALPHA ( 2 ) = -.023 BETA ( 1 ) = -3.863 MACH = 1.0993 Q = 599.08 P = 708.12 RN/L = 3.1793

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.189 -4.282  
40.000 -4.064 -4.121

PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 35.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = 10.000 MACH = 1.100

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 (AYES 11-073-1)

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AYES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF35)

ALPHA ( 2 ) = -.020 BETA ( 2 ) = .185 MACH = 1.0993 Q = 599.08 P = 708.12 RN/L = 3.1793

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4057 -.4189  
40.000 -.4008 -.4147

ALPHA ( 2 ) = -.024 BETA ( 3 ) = 4.249 MACH = 1.0993 Q = 599.08 P = 708.12 RN/L = 3.1793

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4281 -.4376  
40.000 -.3846 -.3988

ALPHA ( 3 ) = 3.952 BETA ( 1 ) = -3.853 MACH = 1.0983 Q = 598.70 P = 709.06 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4143 -.4242  
40.000 -.4174 -.4294

ALPHA ( 3 ) = 3.952 BETA ( 2 ) = .189 MACH = 1.0983 Q = 598.70 P = 709.06 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4047 -.4020  
40.000 -.4186 -.4397

ALPHA ( 3 ) = 3.950 BETA ( 3 ) = 4.243 MACH = 1.0983 Q = 598.70 P = 709.06 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4153 -.4248  
40.000 -.4122 -.4354

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF35)

ALPHA ( 4 ) = 8.033 BETA ( 1 ) = -3.862 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4357 -.4381  
 40.000 -.4544 -.4693

ALPHA ( 4 ) = 8.038 BETA ( 2 ) = .183 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4199 -.4214  
 40.000 -.4332 -.4514

ALPHA ( 4 ) = 8.037 BETA ( 3 ) = 4.237 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4451 -.4466  
 40.000 -.4435 -.4774

ALPHA ( 5 ) = 11.975 BETA ( 1 ) = -3.842 MACH = 1.0987 Q = 598.75 P = 708.59 RN/L = 3.1753

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4592 -.4686  
 40.000 -.4776 -.4937

ALPHA ( 5 ) = 11.986 BETA ( 2 ) = .188 MACH = 1.0987 Q = 598.75 P = 708.59 RN/L = 3.1753

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4318 -.4403  
 40.000 -.4476 -.4822

ORIGINAL PAGE IS  
OF POOR QUALITY.

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF35)

ALPHA ( 5 ) = 11.981 BETA ( 3 ) = 4.246 MACH = 1.0987 Q = 598.75 P = 708.59 RN/L = 3.1753

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4513 -1.4581  
40.000 -1.4423 -1.4844

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF36) 1 05 AUG 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA ( 1 ) = -4.063 BETA ( 1 ) = -3.844 MACH = .90163 Q = 601.33

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3078 -.3167  
40.000 -.3075 -.3441

ALPHA ( 1 ) = -4.055 BETA ( 2 ) = .194 MACH = .90163 Q = 601.33

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3082 -.3057  
40.000 -.3053 -.3211

ALPHA ( 1 ) = -4.060 BETA ( 3 ) = 4.272 MACH = .90163 Q = 601.33

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2964 -.2864  
40.000 -.2991 -.3175

ALPHA ( 2 ) = .042 BETA ( 1 ) = -3.866 MACH = .90027 Q = 600.16

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3172 -.3191  
40.000 -.3054 -.3208

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = 10.000 MACH = .900

P = 1056.6 RN/L = 3.5806

P = 1056.6 RN/L = 3.5806

P = 1056.6 RN/L = 3.5806

P = 1057.8 RN/L = 3.5774

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AYES 11-073-1 )

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(XEBF36)

AYES 11-073(0A148) -140A/B/C/R ORB BCY FLAP UP

ALPHA ( 2 ) = .092 BETA ( 2 ) = .183 MACH = .90027 Q = 600.16 P = 1057.8 RN/L = 3.5774

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2975 -.3100  
40.000 -.2784 -.2897

ALPHA ( 2 ) = .085 BETA ( 3 ) = 4.248 MACH = .90027 Q = 600.16 P = 1057.8 RN/L = 3.5774

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2981 -.3040  
40.000 -.2863 -.2998

ALPHA ( 3 ) = 3.973 BETA ( 1 ) = -3.873 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3146 -.3169  
40.000 -.3002 -.3032

ALPHA ( 3 ) = 3.981 BETA ( 2 ) = .185 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3030 -.3177  
40.000 -.2767 -.2739

ALPHA ( 3 ) = 3.986 BETA ( 3 ) = 4.242 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2959 -.3136  
40.000 -.2642 -.2736

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF36)

ALPHA ( 4 ) = 8.050 BETA ( 1 ) = -3.862 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3156 -.3229  
40.000 -.2960 -.3026

ALPHA ( 4 ) = 8.064 BETA ( 2 ) = .184 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3057 -.3128  
40.000 -.2710 -.2750

ALPHA ( 4 ) = 8.051 BETA ( 3 ) = 4.239 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2991 -.3077  
40.000 -.2523 -.2719

ALPHA ( 5 ) = 11.931 BETA ( 1 ) = -3.854 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5829

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2949 -.3031  
40.000 -.3161 -.3272

ALPHA ( 5 ) = 11.945 BETA ( 2 ) = .188 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5829

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2843 -.2843  
40.000 -.2938 -.3103

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

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AMES 11-073(0A148) - 140A15/C/R ORS BODY FLAP UP

(XEBF 36)

ALPHA (5) = 11.935 BETA (3) = 4.259 MACH = .8977 Q = 600.28 P = 1059.2 RN/L = 3.5829

SECTION (1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

-.000 -.2871 -.2876  
-.0000 -.2867 -.3250



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEP37) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

# REFERENCE DATA

SREF = 2690.000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0820 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

# PARAMETRIC DATA

RUDDER = 10.000 SPORRK = 35.000  
 BOFLAP = 16.300 L-ELVN = .000  
 R-ELVN = 10.000 PAC- = .500

ALPHA ( 1 ) = -4.041 BETA ( 1 ) = -7.848 MACH = .59594 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2555 -2562  
 40.000 -2533 -2562

ALPHA ( 1 ) = -4.025 BETA ( 2 ) = -3.846 MACH = .59594 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2495 -2718  
 40.000 -2595 -2911

ALPHA ( 1 ) = -3.896 BETA ( 3 ) = .184 MACH = .59594 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2291 -2330  
 40.000 -2573 -3050

ALPHA ( 1 ) = -3.930 BETA ( 4 ) = 4.266 MACH = .59594 Q = 595.14 P = 2385.6 RN/L = 4.8725

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2362 -2423  
 40.000 -2737 -2945

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF37)

ALPHA ( 1 ) = -3.946 BETA ( 5 ) = 8.339 MACH = .59694 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.2356 -.2507  
40.000 -.2818 -.2978

ALPHA ( 2 ) = .030 BETA ( 1 ) = -7.898 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2804 -.2842  
40.000 -.2649 -.2786

ALPHA ( 2 ) = .040 BETA ( 2 ) = -3.863 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2768 -.2863  
40.000 -.2440 -.2622

ALPHA ( 2 ) = .104 BETA ( 3 ) = .181 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2554 -.2642  
40.000 -.2580 -.2816

ALPHA ( 2 ) = .102 BETA ( 4 ) = 4.244 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.2334 -.2397  
40.000 -.2692 -.2957

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP  
(XEBF37)

ALPHA ( 2 ) = .019 BETA ( 5 ) = 9.303 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2263 -.2386  
40.000 -.2776 -.2948

ALPHA ( 3 ) = 4.036 BETA ( 1 ) = -7.909 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2284 -.2367  
40.000 -.2575 -.2747

ALPHA ( 3 ) = 4.041 BETA ( 2 ) = -3.867 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2793 -.2887  
40.000 -.2450 -.2665

ALPHA ( 3 ) = 4.040 BETA ( 3 ) = .186 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2595 -.2715  
40.000 -.2415 -.2649

ALPHA ( 3 ) = 4.044 BETA ( 4 ) = 4.237 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2327 -.2526  
40.000 -.2534 -.2825

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF37)

ALPHA ( 3 ) = 4.049 BETA ( 5 ) = 8.284 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2364 -.2388  
40.000 -.2513 -.2819

ALPHA ( 4 ) = 7.972 BETA ( 1 ) = -7.894 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2849 -.3061  
40.000 -.2584 -.2768

ALPHA ( 4 ) = 7.984 BETA ( 2 ) = -3.864 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2596 -.2787  
40.000 -.2572 -.2780

ALPHA ( 4 ) = 7.990 BETA ( 3 ) = .171 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2505 -.2628  
40.000 -.2371 -.2560

ALPHA ( 4 ) = 7.990 BETA ( 4 ) = 4.234 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2467 -.2635  
40.000 -.2274 -.2529

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF37)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 7.988 BETA ( 5 ) = 8.288 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2387 -.2524  
40.000 -.2524 -.2869

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -7.860 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2477 -.2534  
40.000 -.2836 -.3122

ALPHA ( 5 ) = 11.981 BETA ( 2 ) = -3.846 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2436 -.2542  
40.000 -.2648 -.2804

ALPHA ( 5 ) = 11.991 BETA ( 3 ) = .172 MACH = .59676 Q = 594.79 F = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2419 -.2625  
40.000 -.2443 -.2642

ALPHA ( 5 ) = 11.985 BETA ( 4 ) = 4.243 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2474 -.2684  
40.000 -.2462 -.2722

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OF POOR QUALITY

DATE 13 FEB 76

TABLATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF37)

ALPHA ( 5 ) = 11.975 BETA ( 5 ) = 8.313 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/L9 1.0180 1.0460

PHI

.000 -.2397 -.2541  
40.000 -.2428 -.2862

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF38) ( 05 AUG 75

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6500 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.002 BETA ( 1 ) = -3.853 MACH = 1.3931

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.115 -3.355  
 40.000 -3.3178 -3.3220

ALPHA ( 1 ) = -3.940 BETA ( 2 ) = .193 MACH = 1.3931

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.3093 -3.3043  
 40.000 -3.3363 -3.3505

ALPHA ( 1 ) = -3.950 BETA ( 3 ) = 4.276 MACH = 1.3931

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.3228 -3.3173  
 40.000 -3.3483 -3.3644

ALPHA ( 2 ) = .030 BETA ( 1 ) = -3.869 MACH = 1.3931

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3.3237 -3.3252  
 40.000 -3.3425 -3.3536

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 85.000  
 BDFLAP = 16.300 -ELVN = 10.000  
 R-ELVN = 10.000 MACH = 1.400

P = 600.20 P = 441.83 RN/L = 2.9112

P = 600.20 P = 441.83 RN/L = 2.9112

P = 600.20 P = 441.83 RN/L = 2.9112

P = 599.59 P = 441.36 RN/L = 2.9073

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF38)

ALPHA ( 2 ) = .036 BETA ( 2 ) = .183 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9073

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3203 -.3208  
40.000 -.3423 -.3558

ALPHA ( 2 ) = .034 BETA ( 3 ) = 4.255 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9073

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3261 -.3282  
40.000 -.3478 -.3648

ALPHA ( 3 ) = 3.894 BETA ( 1 ) = -3.872 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3324 -.3284  
40.000 -.3560 -.3678

ALPHA ( 3 ) = 3.895 BETA ( 2 ) = .183 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3240 -.3256  
40.000 -.3415 -.3562

ALPHA ( 3 ) = 3.905 BETA ( 3 ) = 4.246 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3334 -.3365  
40.000 -.3429 -.3564



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF38)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 7.922 BETA ( 1 ) = -3.861 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3514 -.3533  
40.000 -.3634 -.3566

ALPHA ( 4 ) = 7.892 BETA ( 2 ) = .182 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3286 -.3314  
40.000 -.3553 -.3721

ALPHA ( 4 ) = 7.830 BETA ( 3 ) = 4.245 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3588 -.3581  
40.000 -.3446 -.3557

ALPHA ( 5 ) = 11.870 BETA ( 1 ) = -5.861 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3546 -.3612  
40.000 -.3737 -.3926

ALPHA ( 5 ) = 11.980 BETA ( 2 ) = .187 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3461 -.3472  
40.000 -.3707 -.3877

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF38)

ALPHA ( 5 ) = 11.873 BETA ( 3 ) = 4.255 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3783 -.3844  
40.000 -.3494 -.3700

ALPHA ( 6 ) = 15.853 BETA ( 1 ) = -3.829 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3484 -.3553  
40.000 -.3719 -.3830

ALPHA ( 6 ) = 15.866 BETA ( 2 ) = .185 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3644 -.3772  
40.000 -.3694 -.3885

ALPHA ( 6 ) = 15.858 BETA ( 3 ) = 4.285 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3851 -.3857  
40.000 -.3700 -.3896

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF39) ( 05 AUG 75 )  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK \* 85.000  
 BDFLAP = 16.300 L-ELVN \* 10.000  
 R-ELVN = 10.000 MACH \* 1.250

ALPHA ( 1 ) = -3.991 BETA ( 1 ) = -3.847 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3615 -.3658  
 40.000 -.3752 -.3847

ALPHA ( 1 ) = -3.979 BETA ( 2 ) = .190 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## DEPENDENT VAR. 3LE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3461 -.3463  
 40.000 -.3715 -.3990

ALPHA ( 1 ) = -3.988 BETA ( 3 ) = 4.277 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3636 -.3673  
 40.000 -.6957 -.4219

ALPHA ( 2 ) = .058 BETA ( 1 ) = -3.868 MACH = 1.2464 Q = 599.66 P = 551.10 RN/L = 3.0101

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3579 -.3662  
 40.000 -.3721 -.3929

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A149 (AVES 11-073-1)

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(XEBF35)

AVES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 2 ) = .062 BETA ( 2 ) = .177 MACH = 1.2468 Q = 599.66 P = 551.10 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3444 -.3539

40.000 -.3749 -.3981

ALPHA ( 2 ) = .021 BETA ( 3 ) = 4.254 MACH = 1.2468 Q = 599.66 P = 551.10 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3234 -.3698

40.000 -.3963 -.4221

ALPHA ( 3 ) = 3.934 BETA ( 1 ) = -3.873 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3727 -.3757

40.000 -.3999 -.4184

ALPHA ( 3 ) = 3.935 BETA ( 2 ) = .189 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3644 -.3781

40.000 -.3937 -.4221

ALPHA ( 3 ) = 3.939 BETA ( 3 ) = 4.242 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3747 -.3813

40.000 -.3977 -.4220

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF39)

ALPHA ( 4 ) = 7.936 BETA ( 1 ) = -3.863 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4028 -.4090  
40.000 -.4217 -.4262

ALPHA ( 4 ) = 7.897 BETA ( 2 ) = .182 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3886 -.3896  
40.000 -.4241 -.4433

ALPHA ( 4 ) = 7.878 BETA ( 3 ) = 4.243 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.4146 -.4186  
40.000 -.4110 -.4285

ALPHA ( 5 ) = 11.869 BETA ( 1 ) = -3.849 MACH = 1.2475 Q = 600.06 P = 550.87 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4225 -.4249  
40.000 -.4272 -.4294

ALPHA ( 5 ) = 11.810 BETA ( 2 ) = .187 MACH = 1.2475 Q = 600.06 P = 550.87 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4078 -.4002  
40.000 -.4293 -.4454

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

IFACE 5576

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF38)

ALPHA ( 5 ) = 11.866 BETA ( 3 ) = 4.252 MACH = 1.2475 Q = 600.05 P = 550.87 RAY/L = 3.4127

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

40.000 -4.151 -4.139  
40.000 -4.203 -4.442

DATE 12 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5577

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

XREF#001 ( 05 AUG 75 )

## REFERENCE DATA

SPEC = 2530.000 SQ.FT. XMRP = 1076.660 IN. XO  
 LREF = 474.5000 IN. YMRP = .0000 IN. YO  
 SPEC = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0500

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.842 MACH = 1.1017 Q = 501.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4257 -1.4153  
 40.000 -1.4379 -1.4577

ALPHA ( 2 ) = -3.997 BETA ( 2 ) = .194 MACH = 1.1017 Q = 501.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4203 -1.4158  
 40.000 -1.4279 -1.4599

ALPHA ( 3 ) = -3.996 BETA ( 3 ) = 4.277 MACH = 1.1017 Q = 501.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4192 -1.4417  
 40.000 -1.4571 -1.4105

ALPHA ( 2 ) = .015 BETA ( 1 ) = -3.867 MACH = 1.1001 Q = 500.08 P = 708.37 RN/L = 3.1860

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4191 -1.4217  
 40.000 -1.4335 -1.4543

## PARAMETRIC DATA

RUDDER = 10.112 SPOBRK = 95.730  
 BDFLAP = 16.333 L-ELVN = 15.100  
 R-ELVN = 10.113 MACH = 1.100

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF40)

ALPHA ( 2 ) = .018 BETA ( 2 ) = .181 MACH = 1.1001 Q = 600.08 P = 708.37 RN/L = 3.1850

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3991 -.4135

40.000 -.4236 -.4631

ALPHA ( 2 ) = .012 BETA ( 3 ) = 4.250 MACH = 1.1001 Q = 600.08 P = 708.37 RN/L = 3.1850

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4067 -.4182

40.000 -.4610 -.4639

ALPHA ( 3 ) = 3.919 BETA ( 1 ) = -3.885 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4146 -.4316

40.000 -.4489 -.4733

ALPHA ( 3 ) = 3.917 BETA ( 2 ) = .178 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4138 -.4192

40.000 -.4518 -.4814

ALPHA ( 3 ) = 3.924 BETA ( 3 ) = 4.244 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4196 -.4326

40.000 -.4605 -.4832



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XEBF40)

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -3.850 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4534 -.4732  
40.000 -.4775 -.4848

ALPHA ( 4 ) = 7.905 BETA ( 2 ) = .181 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4526 -.4651  
40.000 -.4755 -.4858

ALPHA ( 4 ) = 7.904 BETA ( 3 ) = 4.239 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4441 -.4462  
40.000 -.4824 -.5088

ALPHA ( 5 ) = 11.906 BETA ( 1 ) = -3.844 MACH = 1.0995 Q = 600.08 P = 709.07 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4670 -.4722  
40.000 -.4807 -.4937

ALPHA ( 5 ) = 11.808 BETA ( 2 ) = .188 MACH = 1.0995 Q = 600.08 P = 709.07 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4478 -.4482  
40.000 -.4624 -.4825

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5580

(XEBF40)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

RN/L = 3.1837

= 709.07

P

= 500.08

MACH = 1.0995

4.250

BETA ( 3 ) =

11.865

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.0000 -.4695 -.4718  
40.0000 -.4600 -.4641

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF41) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SPRF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRPF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.997 BETA ( 1 ) = -3.840 MACH = .89993 Q = 599.67 P = 1057.8 RN/L = 3.5780

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3621 -.3481  
 40.000 -.3971 -.4333

ALPHA ( 1 ) = -3.991 BETA ( 2 ) = .189 MACH = .89993 Q = 599.67 P = 1057.8 RN/L = 3.5780

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3549 -.3377  
 40.000 -.3994 -.4065

ALPHA ( 1 ) = -3.992 BETA ( 3 ) = .171274 MACH = .89993 Q = 599.67 P = 1057.8 RN/L = 3.5780

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3461 -.3445  
 40.000 -.3882 -.3993

ALPHA ( 2 ) = .052 BETA ( 1 ) = -3.863 MACH = .89853 Q = 598.47 P = 1059.0 RN/L = 3.5741

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3564 -.3478  
 40.000 -.3819 -.3881

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BOFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .900

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF41)

ALPHA ( 2 ) = .055 BETA ( 2 ) = .182 MACH = .89853 Q = 598.47 P = 1059.0 RN/L = 3.5741

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3438 -.3474  
40.000 -.3727 -.3867

ALPHA ( 2 ) = .070 BETA ( 3 ) = 4.253 MACH = .89853 Q = 598.47 P = 1059.0 RN/L = 3.5741

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3474 -.3489  
40.000 -.3770 -.3891

ALPHA ( 3 ) = 3.947 BETA ( 1 ) = -3.868 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3585 -.3556  
40.000 -.3722 -.3890

ALPHA ( 3 ) = 4.018 BETA ( 2 ) = .184 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3412 -.3485  
40.000 -.3599 -.3793

ALPHA ( 3 ) = 4.018 BETA ( 3 ) = 4.245 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3466 -.3494  
40.000 -.3748 -.3736

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XESF41)

ALPHA ( 4 ) = 7.919 BETA ( 1 ) = -3.861 MACH = .89927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3429 -.3473  
40.000 -.3755 -.3852

ALPHA ( 4 ) = 7.925 BETA ( 2 ) = .181 MACH = .89927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3327 -.3491  
40.000 -.3607 -.3846

ALPHA ( 4 ) = 7.877 BETA ( 3 ) = 4.247 MACH = .89927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3378 -.3482  
40.000 -.3691 -.3781

ALPHA ( 5 ) = 11.893 BETA ( 1 ) = -3.850 MACH = .89863 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3459 -.3560  
40.000 -.3670 -.3957

ALPHA ( 5 ) = 11.848 BETA ( 2 ) = .191 MACH = .89863 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3154 -.3289  
40.000 -.3458 -.3749ORIGINAL PAGE 15  
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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF41)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 11.881 BETA ( 3 ) = 4.259 MACH = .89863 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 - .3212 - .3470  
 40.000 - .3406 - .3804

DEPENDENT VARIABLE CP

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF42) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

REFERENCE DATA

SREF = 2620.000 SQ.FT. XMRP = 1076.680 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BPEL = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.049 BETA ( 1 ) = -7.852 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3230 -3375  
 40.000 -2889 -3020

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = -3.842 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3111 -3392  
 40.000 -2796 -3099

ALPHA ( 1 ) = -3.888 BETA ( 3 ) = .191 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2790 -2721  
 40.000 -3440 -3949

ALPHA ( 1 ) = -3.983 BETA ( 4 ) = 4.273 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3083 -3295  
 40.000 -3533 -3938

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .600

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF42)

ALPHA ( 1 ) = -3.999 BETA ( 5 ) = 8.343 MACH = .59622 Q = 593.61 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3093 -.3252  
40.000 -.3593 -.3923

ALPHA ( 2 ) = -.003 BETA ( 1 ) = -7.885 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3245 -.3381  
40.000 -.2944 -.3063

ALPHA ( 2 ) = .104 BETA ( 2 ) = -3.860 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3231 -.3499  
40.000 -.2932 -.3037

ALPHA ( 2 ) = .114 BETA ( 3 ) = .190 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2904 -.2783  
40.000 -.3304 -.3692

ALPHA ( 2 ) = .111 BETA ( 4 ) = 4.251 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3150 -.3391  
40.000 -.3576 -.3850



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF42)

ALPHA ( 2 ) = .040 BETA ( 5 ) = 8.310 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3200 -.3320  
40.000 -.3563 -.3906

ALPHA ( 3 ) = 4.041 BETA ( 1 ) = -7.899 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3297 -.3382  
40.000 -.2992 -.31

ALPHA ( 3 ) = 3.969 BETA ( 2 ) = -3.860 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3301 -.3414  
40.000 -.2925 -.3171

ALPHA ( 3 ) = 4.049 BETA ( 3 ) = .193 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.2800 -.2815  
40.000 -.3190 -.3724

ALPHA ( 3 ) = 3.947 BETA ( 4 ) = 4.242 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3156 -.3416  
40.000 -.3517 -.3893

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF42)

ALPHA ( 3 ) = 3.925 BETA ( 5 ) = 8.292 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3188 -.3290

40.000 -.3585 -.3932

ALPHA ( 4 ) = 7.905 BETA ( 1 ) = -7.888 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3400 -.3599

40.000 -.2960 -.3043

ALPHA ( 4 ) = 7.915 BETA ( 2 ) = -3.255 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3227 -.3381

40.000 -.2811 -.3130

ALPHA ( 4 ) = 8.038 BETA ( 3 ) = .180 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2751 -.2869

40.000 -.3219 -.3618

ALPHA ( 4 ) = 8.035 BETA ( 4 ) = 4.244 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3277 -.3537

40.000 -.3565 -.3738

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF42)

ALPHA ( 5 ) = 5.035 BETA ( 5 ) = 8.296 MACH = .59644 Q = 594.43 P = 2386.1 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3344 -.3555  
40.000 -.3675 -.3964

ALPHA ( 5 ) = 11.910 BETA ( 1 ) = -7.853 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2642 -.2824  
40.000 -.3219 -.3607

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = -3.836 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2801 -.2915  
40.000 -.3115 -.3690

ALPHA ( 5 ) = 11.966 BETA ( 3 ) = .177 MACH = .59358 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP UPPER,

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2655 -.2854  
40.000 -.3133 -.3518

ALPHA ( 5 ) = 11.976 BETA ( 4 ) = 4.252 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3127 -.3516  
40.000 -.3473 -.3743

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 12.034 BETA ( 5 ) = 8.318 MACH = .59658 Q = 594.43 P = 2385.8

(XEBF421)

PRICE 5590

5 4.8625

RNVL

SECTION 1 1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3262 -.3432  
45.000 -.3458 -.3640

DATE 13 FEB 75

TABULATED PRESSURE DATA - 04148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF43) ( 05 AUG 75 )

## REFERENCE DATA

SPCF = 2532.0000 20.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 935.0380 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.070 BETA ( 1 ) = -3.850 MACH = .89793 Q = 598.79 P = 1050.9 RN/L = 3.5697

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3613 -1.3499  
 40.000 -1.3874 -1.3522

ALPHA ( 1 ) = -4.069 BETA ( 2 ) = .187 MACH = .89793 Q = 598.79 P = 1050.9 RN/L = 3.5697

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3595 -1.3486  
 40.000 -1.3701 -1.3423

ALPHA ( 1 ) = -4.078 BETA ( 3 ) = 4.272 MACH = .89793 Q = 598.79 P = 1050.9 RN/L = 3.5697

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3566 -1.3521  
 40.000 -1.3602 -1.3578

ALPHA ( 2 ) = -.023 BETA ( 1 ) = -3.865 MACH = .89577 Q = 597.91 P = 1052.1 RN/L = 3.5486

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3573 -1.3514  
 40.000 -1.3663 -1.3383

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.0000  
 BOFLAP = 22.500 ELVN = 10.0000  
 R-ELVN = 10.000 MAC = .9000

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP

(XEBF43)

ALPHA ( 2 ) = -.015 BETA ( 2 ) = .186 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6486

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3383 -.3359  
40.000 -.3525 -.3335

ALPHA ( 2 ) = -.021 BETA ( 3 ) = 4.247 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6486

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3437 -.3478  
40.000 -.3565 -.3418

ALPHA ( 3 ) = 3.931 BETA ( 1 ) = -3.870 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3501 -.3513  
40.000 -.3278 -.3350

ALPHA ( 3 ) = 3.931 BETA ( 2 ) = .185 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3395 -.3412  
40.000 -.3301 -.3310

ALPHA ( 3 ) = 3.933 BETA ( 3 ) = 4.242 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3450 -.3337  
40.000 -.3493 -.3486

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF43)

ALPHA ( 4 ) = 7.998 BETA ( 1 ) = -3.866 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3565 -.3446  
40.000 -.3361 -.3375

ALPHA ( 4 ) = 8.006 BETA ( 2 ) = .180 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3522 -.3479  
40.000 -.3351 -.3311

ALPHA ( 4 ) = 8.004 BETA ( 3 ) = 4.244 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3435 -.3558  
40.000 -.3451 -.3520

ALPHA ( 5 ) = 11.977 BETA ( 1 ) = -3.863 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3697 -.3754  
40.000 -.3833 -.4086

ALPHA ( 5 ) = 11.988 BETA ( 2 ) = .182 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3436 -.3453  
40.000 -.3602 -.3853

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEB743)

ALPHA ( 5 ) = 11.978 BETA ( 3 ) = 4.261 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.060 -.3604 -.3654  
40.000 -.3741 -.3995



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF44) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6820 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.0500 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
BOFLAP = 22.500 L-ELVN = 10.000  
R-ELVN = 10.000 MACH = .500

ALPHA ( 1 ) = -4.010 BETA ( 1 ) = -7.850 MACH = .59610 0 = 593.75 P = 2387.2 RN/L = 4.8840

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3007 -.2920  
40.000 -.3010 -.3266

ALPHA ( 1 ) = -3.994 BETA ( 2 ) = -3.842 MACH = .59610 0 = 593.75 P = 2387.2 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2919 -.2847  
40.000 -.3014 -.3230

ALPHA ( 1 ) = -3.985 BETA ( 3 ) = .188 MACH = .59610 0 = 593.75 P = 2387.2 RN/L = 4.8840

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2903 -.2792  
40.000 -.3045 -.3277

ALPHA ( 1 ) = -3.992 BETA ( 4 ) = 4.269 MACH = .59610 0 = 593.75 P = 2387.2 RN/L = 4.8840

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2821 -.2738  
40.000 -.3124 -.3386

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF44)

ALPHA ( 1 ) = -4.007 BETA ( 5 ) = 8.349 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2819 -.2666  
40.000 -.3252 -.3504

ALPHA ( 2 ) = .039 BETA ( 1 ) = -7.886 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3145 -.3079  
40.000 -.3112 -.3079

ALPHA ( 2 ) = .052 BETA ( 2 ) = -3.866 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3002 -.3054  
40.000 -.3012 -.3175

ALPHA ( 2 ) = .05 BETA ( 3 ) = .192 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2886 -.2955  
40.000 -.2936 -.3200

ALPHA ( 2 ) = .049 BETA ( 4 ) = 4.248 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2847 -.2883  
40.000 -.3162 -.3347

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TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

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AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP (XE8F44)

ALPHA ( 2 ) = .044 BETA ( 5 ) = 8.307 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2992 -.2901  
40.000 -.3322 -.3516

ALPHA ( 3 ) = 3.960 BETA ( 1 ) = -7.902 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3192 -.3263  
40.000 -.2998 -.3019

ALPHA ( 3 ) = 3.964 BETA ( 2 ) = -3.864 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3067 -.3142  
40.000 -.3010 -.3209

ALPHA ( 3 ) = 3.969 BETA ( 3 ) = .189 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2824 -.2968  
40.000 -.2874 -.3217

ALPHA ( 3 ) = 3.972 BETA ( 4 ) = 4.243 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2881 -.2905  
40.000 -.3169 -.3380

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF44)

ALPHA ( 3 ) = 3.982 BETA ( 5 ) = 8.290 MACH = .59694 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3092 -.3222  
40.000 -.3370 -.3408

ALPHA ( 4 ) = 8.025 BETA ( 1 ) = -7.890 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3241 -.3381  
40.000 -.3092 -.3030

ALPHA ( 2 ) = 8.036 BETA ( 2 ) = -3.859 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3006 -.3120  
40.000 -.2935 -.3082

ALPHA ( 4 ) = 8.040 BETA ( 3 ) = .178 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2832 -.2922  
40.000 -.2855 -.3199

ALPHA ( 4 ) = 8.039 BETA ( 4 ) = 4.241 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2867 -.2964  
40.000 -.3172 -.3335

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XESF44)

ALPHA ( 4 ) = 8 (.38) BETA ( 5 ) = 8.285 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3152 -.3105  
40.000 -.3399 -.3653

ALPHA ( 5 ) = 12.021 BETA ( 1 ) = -7.852 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2834 -.2839  
40.000 -.2917 -.3297

ALPHA ( 5 ) = 11.932 BETA ( 2 ) = -3.840 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2985 -.3039  
40.000 -.2909 -.3160

ALPHA ( 5 ) = 11.946 BETA ( 3 ) = .176 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2770 -.2930  
40.000 -.3062 -.3348

ALPHA ( 5 ) = 11.941 BETA ( 4 ) = 4.247 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3085 -.3128  
40.000 -.3357 -.3584

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP (XEBF44)

ALPHA ( 5 ) = 11.928 BETA ( 5 ) = 8.307 MACH = .59616 0 = 593.74 P = 2386.7 RN/L = 4.8654

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2895 -.3029  
40.000 -.3292 -.3492

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF45) ( 05 AUG 75 )  
AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0330

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BOFLAP = 22.500 L-ELVN = 4.000  
 R-ELVN = 4.000 PACH = .900

ALPHA ( 1 ) = -3.961 BETA ( 1 ) = -3.852 MACH = .89683 Q = 597.89 P = 1061.9 RN/L = 3.6441

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3616 -.3466  
 40.000 -.3604 -.3575

ALPHA ( 1 ) = -3.932 BETA ( 2 ) = .188 MACH = .89683 Q = 597.89 P = 1061.9 RN/L = 3.6441

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3669 -.3537  
 40.000 -.3641 -.3510

ALPHA ( 1 ) = -3.942 BETA ( 3 ) = 4.270 MACH = .89683 Q = 597.89 P = 1061.9 RN/L = 3.6441

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3567 -.3458  
 40.000 -.3671 -.3571

ALPHA ( 2 ) = .010 BETA ( 1 ) = -3.868 MACH = .89660 Q = 597.56 P = 1061.9 RN/L = 3.6228

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3542 -.3577  
 40.000 -.3347 -.3452

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF45)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 2 ) = .025 BETA ( 2 ) = .185 MACH = .89660 Q = 597.56 P = 1061.9 RN/L = 3.6228

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3525 -.3468  
40.000 -.3373 -.3439

ALPHA ( 2 ) = .019 BETA ( 3 ) = 4.247 MACH = .89660 Q = 597.56 P = 1061.9 RN/L = 3.6228

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3563 -.3504  
40.000 -.3573 -.3651

ALPHA ( 3 ) = 3.946 BETA ( 1 ) = -3.873 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.5099

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3397 -.3532  
40.000 -.3402 -.3328

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = .184 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.5099

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3359 -.3314  
40.000 -.3295 -.3392

ALPHA ( 3 ) = 3.937 BETA ( 3 ) = 4.239 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.5099

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3432 -.3406  
40.000 -.3429 -.3514



DATE 13 FEB 7 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF45)

ALPHA ( 4 ) = 7.970 BETA ( 1 ) = -3.638 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3450 -.3542  
40.000 -.3505 -.3313

ALPHA ( 4 ) = 7.979 BETA ( 2 ) = .177 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3369 -.3397  
40.000 -.3480 -.3264

ALPHA ( 4 ) = 7.978 BETA ( 3 ) = 4.243 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3515 -.3593  
40.000 -.3427 -.3442

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -3.856 MACH = .89653 Q = 597.97 P = 1062.9 RN/L = 3.5856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3668 -.3720  
40.000 -.3429 -.3536

ALPHA ( 5 ) = 11.961 BETA ( 2 ) = .178 MACH = .89653 Q = 597.97 P = 1062.9 RN/L = 3.5856

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3615 -.3551  
40.000 -.3397 -.3558ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEB745)

ALPHA ( 50 ) = 11.950 BETA ( 3 ) = 4.259 MACH = .89653 Q = 597.97 P = 1062.9 RN/L = 3.5856

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3734 -.3725  
+0.000 -.3575 -.3684

DATE 13 FEB 76  
 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEB745) ( 05 AUG 75 )

PARAMETRIC DATA

RUDDER = .000  
 BODY FLAP = 22.500  
 R-ELVN = 4.000  
 SPOBRK = 55.000  
 L-ELVN = 4.000  
 MACH = .600

REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SPEF = 936.0620 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.081 BETA ( 1 ) = -7.851 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.9516

SECTION ( 1 ) BODY FLAP UPPER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2840 -1.2753  
 40.000 -1.2956 -1.3190

ALPHA ( 1 ) = -3.953 BETA ( 2 ) = -3.833 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.9516

SECTION ( 1 ) BODY FLAP UPPER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2722 -1.2651  
 40.000 -1.2866 -1.3145

ALPHA ( 1 ) = -3.951 BETA ( 3 ) = .188 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.9516

SECTION ( 1 ) BODY FLAP UPPER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2743 -1.2687  
 40.000 -1.2952 -1.3159

ALPHA ( 1 ) = -3.958 BETA ( 4 ) = 4.269 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.9516

SECTION ( 1 ) BODY FLAP UPPER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2653 -1.2566  
 40.000 -1.3042 -1.3354

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF46)

ALPHA ( 1 ) = -3.973 BETA ( 5 ) = 8.335 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.8516

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2702 -2633  
40.000 -3043 -3365

ALPHA ( 2 ) = .060 BETA ( 1 ) = -7.888 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2996 -2861  
40.000 -2946 -3128

ALPHA ( 2 ) = .070 BETA ( 2 ) = -3.865 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2852 -2826  
40.000 -2800 -3084

ALPHA ( 2 ) = .070 BETA ( 3 ) = .181 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2700 -2752  
40.000 -2861 -3159

ALPHA ( 2 ) = .068 BETA ( 4 ) = +2.248 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2722 -2846  
40.000 -3008 -3317

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF46)

ALPHA ( 2 ) = .063 BETA ( 5 ) = 8.306 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2800 -.2752  
40.000 -.3105 -.3476

ALPHA ( 3 ) = 4.012 BETA ( 1 ) = -7.901 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.3000 -.3107  
40.000 -.2904 -.3048

ALPHA ( 3 ) = 4.016 BETA ( 2 ) = -3.862 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2837 -.2908  
40.000 -.2842 -.3047

ALPHA ( 3 ) = 4.027 BETA ( 3 ) = .191 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2627 -.2708  
40.000 -.2811 -.2986

ALPHA ( 3 ) = 4.030 BETA ( 4 ) = 4.239 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -.2763 -.2798  
40.000 -.3013 -.3350

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP (XEBF45)

ALPHA ( 3 ) = 4.035 BETA ( 5 ) = 8.288 MACH = .59704 Q = 594.93 P = 2386.0 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2885 -.2939  
40.000 -.3097 -.3437

ALPHA ( 4 ) = 7.996 BETA ( 1 ) = -7.892 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3002 -.3108  
40.000 -.2936 -.3115

ALPHA ( 4 ) = 8.007 BETA ( 2 ) = -3.861 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2996 -.3044  
40.000 -.2848 -.2822

ALPHA ( 4 ) = 8.012 BETA ( 3 ) = .176 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2755 -.2812  
40.000 -.2715 -.2951

ALPHA ( 4 ) = 3.012 BETA ( 4 ) = 4.240 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2827 -.2820  
40.000 -.2813 -.2805

## DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF46)

ALPHA ( 4 ) = 8.009 BETA ( 5 ) = 8.293 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.2879 -.2771  
40.000 -.2982 -.3469

ALPHA ( 5 ) = 11.987 BETA ( 1 ) = -7.852 MACH = .59692 Q = 595.28 P = 2386.8 RN/L = 4.8363

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2963 -.2965  
40.000 -.2869 -.2592

ALPHA ( 5 ) = 12.008 BETA ( 2 ) = -3.842 MACH = .59692 Q = 595.28 P = 2386.8 RN/L = 4.8363

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2950 -.3038  
40.000 -.2766 -.2909

ALPHA ( 5 ) = 12.016 BETA ( 3 ) = .174 MACH = .59692 Q = 595.28 P = 2386.8 RN/L = 4.8363

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2780 -.2860  
40.000 -.2829 -.2996

ALPHA ( 5 ) = 11.917 BETA ( 4 ) = 4.245 MACH = .59692 Q = 595.28 P = 2386.8 RN/L = 4.8363

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2750 -.2851  
40.000 -.2915 -.3236ORIGINAL PAGE IS  
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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP

(XEBF46)

ALPHA ( 5 ) = 11.934 BETA ( 5 ) = 8.309 MACH = .59692 Q = 595.28 P = 2386.8 RV/L = 4.8363

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2584 -.2816  
40.000 -.2870 -.3445



PARAMETRIC DATA

REFERENCE DATA

SPEF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO RUDDER = -10.000 SPDBRK = 85.000  
LREF = 474.8000 IN. YMRP = .0000 IN. YO 8DFLAP = 16.300 L-ELVN = 4.000  
SREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO R-ELVN = 4.000 MACH = 1.400  
SCALE = .0300

ALPHA ( 1 ) = -4.021 BETA ( 1 ) = -3.852 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3135 -.3142  
40.000 -.3284 -.3407

ALPHA ( 1 ) = -4.015 BETA ( 2 ) = .189 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3038 -.2998  
40.000 -.3253 -.3409

ALPHA ( 1 ) = -4.023 BETA ( 3 ) = 4.275 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3187 -.3250  
40.000 -.3217 -.3340

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.871 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3264 -.3323  
40.000 -.3382 -.3452

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF47)

ALPHA ( 2 ) = -.002 BETA ( 2 ) = .186 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3245 -.3269  
40.000 -.3378 -.3512

ALPHA ( 2 ) = -.007 BETA ( 3 ) = 4.251 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3308 -.3332  
40.000 -.3386 -.3558

ALPHA ( 3 ) = 3.927 BETA ( 1 ) = -3.876 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3374 -.3428  
40.000 -.3499 -.3595

ALPHA ( 3 ) = 3.927 BETA ( 2 ) = .191 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3399 -.3437  
40.000 -.3479 -.3571

ALPHA ( 3 ) = 3.930 BETA ( 3 ) = 4.244 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3428 -.3480  
40.000 -.3534 -.3711

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF477)

ALPHA ( 4 ) = 7.863 BETA ( 1 ) = -3.871 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3546 -.3648  
40.000 -.3589 -.3648

ALPHA ( 4 ) = 7.994 BETA ( 2 ) = .174 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3515 -.3546  
40.000 -.3499 -.3560

ALPHA ( 4 ) = 7.994 BETA ( 3 ) = 4.239 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3465 -.3472  
40.000 -.3560 -.3690

ALPHA ( 5 ) = 11.867 BETA ( 1 ) = -3.858 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3599 -.3577  
40.000 -.3750 -.3646

ALPHA ( 5 ) = 11.873 BETA ( 2 ) = .176 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3527 -.3710  
40.000 -.3611 -.3693

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP UP (XEBF47)  
ALPHA ( 5 ) = 11.868 BETA ( 3 ) = 4.257 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
PHI  
.000 -.3578 -.3521  
40.000 -.3651 -.3809  
ALPHA ( 6 ) = 15.839 BETA ( 1 ) = -3.834 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
PHI  
.000 -.3680 -.3654  
40.000 -.3813 -.3976  
ALPHA ( 6 ) = 15.851 BETA ( 2 ) = .174 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
PHI  
.000 -.3652 -.3513  
40.000 -.4014 -.4217  
ALPHA ( 6 ) = 15.843 BETA ( 3 ) = 4.283 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
PHI  
.000 -.3578 -.3452  
40.000 -.3925 -.4133

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF48) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
SREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.024 BETA ( 1 ) = -3.849 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.457 -3.472  
40.000 -3.3639 -3.3772

ALPHA ( 1 ) = -4.005 BETA ( 2 ) = .189 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.434 -3.424  
40.000 -3.366 -3.388

ALPHA ( 1 ) = -4.015 BETA ( 3 ) = 4.273 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3.324 -3.368  
40.000 -3.3801 -3.4104

ALPHA ( 2 ) = .012 BETA ( 1 ) = -3.869 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -3.3633 -3.3793  
40.000 -3.3741 -3.3852

PARAMETRIC DATA

RUDDER = -10.000 SFDBRK = 85.000  
BD-FLAP = 15.300 L-ELVN = 4.000  
R-ELVN = 4.000 MACH = 1.250

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TABULATED PRESSURE DATA - 0A146 ( AYES 11-073-1 )

AYES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF48)

ALPHA ( 2 ) = .020 BETA ( 2 ) = .189 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3614 -.3758  
40.000 -.3720 -.3943

ALPHA ( 2 ) = .014 BETA ( 3 ) = 4.249 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3669 -.3686  
40.000 -.3840 -.4072

ALPHA ( 3 ) = 3.961 BETA ( 1 ) = -3.873 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3257 -.3944  
40.000 -.3904 -.3966

ALPHA ( 3 ) = 3.950 BETA ( 2 ) = -.185 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3763 -.3906  
40.000 -.3685 -.4048

ALPHA ( 3 ) = 3.964 BETA ( 3 ) = 4.240 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3874 -.3921  
40.000 -.3933 -.4103

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TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF48)

ALPHA ( 4 ) = 7.898 BETA ( 1 ) = -3.868 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4057 -1.4120  
40.000 -1.4094 -1.4238

ALPHA ( 4 ) = 8.000 BETA ( 2 ) = .178 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4028 -1.4130  
40.000 -1.3981 -1.4283

ALPHA ( 4 ) = 9.003 BETA ( 3 ) = 4.235 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4007 -1.3969  
40.000 -1.4101 -1.4217

ALPHA ( 5 ) = 11.933 BETA ( 1 ) = -3.854 MACH = 1.2450 Q = 599.95 P = 552.98 RN/L = 3.0281

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4157 -1.4036  
40.000 -1.4376 -1.4537

ALPHA ( 5 ) = 11.941 BETA ( 2 ) = .176 MACH = 1.2450 Q = 599.95 P = 552.98 RN/L = 3.0281

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.4085 -1.4115  
40.000 -1.4359 -1.4446

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DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R 088 BODY FLAP UP

(XEBF48)

ALPHA ( 5 ) = 11.935 BETA ( 3 ) = 4.253 MACH = 1.2450 Q = 599.95 P = 532.98 RN/L = 3.129

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4091 -1.4146  
40.000 -1.4167 -1.4405



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF49) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6500 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 935.2560 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA ( 1 ) = -4.022 BETA ( 1 ) = -3.848 MACH = 1.1001 Q = 500.26 P = 708.59 RN/L = 3.1930

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
.000 -1.3994 -1.3968  
40.000 -1.4233 -1.4495

ALPHA ( 1 ) = -4.022 BETA ( 2 ) = .189 MACH = 1.1001 Q = 500.26 P = 708.59 RN/L = 3.1930

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
.000 -1.4059 -1.4134  
40.000 -1.4472 -1.4825

ALPHA ( 1 ) = -4.029 BETA ( 3 ) = 4.271 MACH = 1.1001 Q = 500.26 P = 708.59 RN/L = 3.1930

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
.000 -1.4259 -1.4297  
40.000 -1.4774 -1.4791

ALPHA ( 2 ) = .025 BETA ( 1 ) = -3.866 MACH = 1.1003 Q = 500.53 P = 708.60 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
.000 -1.4113 -1.4203  
40.000 -1.4118 -1.4250

PARAMETRIC DATA

RUDDER = -10.000 SPOERK = 185.000  
BDELAP = 15.300 L-ELVN = 4.000  
R-ELVN = 4.000 MACH = 1.100

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF49)

ALPHA ( 2 ) = .030 BETA ( 2 ) = .186 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1951

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3544 -.4090  
40.000 -.4220 -.4534

ALPHA ( 2 ) = .026 BETA ( 3 ) = 4.247 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1951

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4105 -.4171  
40.000 -.4499 -.4852

ALPHA ( 3 ) = 3.995 BETA ( 1 ) = -3.867 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4339 -.4391  
40.000 -.4216 -.4315

ALPHA ( 3 ) = 3.996 BETA ( 2 ) = .185 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4158 -.4290  
40.000 -.4278 -.4488

ALPHA ( 3 ) = 3.999 BETA ( 3 ) = 4.239 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.4264 -.4286  
40.000 -.4493 -.4482

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## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F49)

ALPHA ( 4 ) = 7.942 BETA ( 1 ) = -3.865 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4551 -.4643  
40.000 -.4407 -.4492

ALPHA ( 4 ) = 8.042 BETA ( 2 ) = .178 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4372 -.4419  
40.000 -.4563 -.4752

ALPHA ( 4 ) = 8.044 BETA ( 3 ) = 4.232 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

.000

-.4420 -.4439  
40.000 -.4661 -.4774

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.845 MACH = 1.0980 Q = 599.65 P = 710.48 RN/L = 3.1930

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4692 -.4803  
40.000 -.4926 -.5157

ALPHA ( 5 ) = 11.986 BETA ( 2 ) = .181 MACH = 1.0980 Q = 599.65 P = 710.48 RN/L = 3.1930

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4560 -.4645  
40.000 -.4756 -.5040

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF49)

ALPHA ( 5 ) = 11.982    BETA ( 3 ) = 4.250    MACH = 1.0980    Q = 599.65    P = 710.48    RN/L = 3.1930

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    -.4655    -.4757

40.000    -.4703    -.4889

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## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF50) ( 05 AUG 75 )  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRP = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.039 BETA ( 1 ) = -3.850 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5763

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.492 -.3556  
 40.000 -.3360 -.3544

ALPHA ( 1 ) = -4.026 BETA ( 2 ) = .188 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5763

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3348 -.3353  
 40.000 -.3546 -.3971

ALPHA ( 1 ) = -4.037 BETA ( 3 ) = 4.267 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5763

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3297 -.3261  
 40.000 -.3761 -.4210

ALPHA ( 2 ) = .032 BETA ( 1 ) = -3.867 MACH = .89853 Q = 599.04 P = 1060.0 RN/L = 3.5758

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3443 -.3483  
 40.000 -.3336 -.3414

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = .900

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF50)

RN/L = 3.5758

P = 599.04

Q = 1060.0

MACH = .184

BETA ( 2 ) = .035

ALPHA ( 2 ) = .035

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0190 1.0460

PHI .000

.000

.3390

.3393

RN/L = 3.5758

P = 599.04

Q = 1060.0

MACH = .184

BETA ( 3 ) = .028

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI .000

.000

.3305

.3799

RN/L = 3.5790

P = 600.62

Q = 1057.6

MACH = .184

BETA ( 1 ) = 3.999

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI .000

.000

.3470

.3288

RN/L = 3.5790

P = 600.62

Q = 1057.6

MACH = .184

BETA ( 2 ) = 4.003

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI .000

.000

.3255

.3657

RN/L = 3.5790

P = 600.62

Q = 1057.6

MACH = .184

BETA ( 3 ) = 4.005

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI .000

.000

.3491

.3908

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F50)

ALPHA ( 4 ) = 8.040 BETA ( 1 ) = -3.870 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3278 -.3521  
40.000 -.3183 -.3318

ALPHA ( 4 ) = 8.045 BETA ( 2 ) = .178 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3167 -.3278  
40.000 -.3283 -.3599

ALPHA ( 4 ) = 8.043 BETA ( 3 ) = .4.236 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3313 -.3296  
40.000 -.3596 -.3737

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.854 MACH = .89910 Q = 599.28 P = 1059.0 RN/L = 3.5742

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3389 -.3512  
40.000 -.3217 -.3415

ALPHA ( 5 ) = 11.989 BETA ( 2 ) = .180 MACH = .89910 Q = 599.28 P = 1059.0 RN/L = 3.5742

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3296 -.3397  
40.000 -.3364 -.3578

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF50)

ALPHA ( 5 ) = 11.979 BETA ( 3 ) = 4.260 MACH = .89910 Q = 599.28 P = 1059.0 RN/L = 3.5742

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3276 -.3375  
40.000 -.3633 -.3869



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

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(XEBF51) ( 05 AUG 75 )

# PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 85.000  
BDFLAP = 16.300 L-ELVN = 4.000  
R-ELVN = 4.000 MACH = .500

REFERENCE DATA  
SREF = 2690.0000 SQ.FT. XMRP = 1 6.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YC  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -3.976 BETA ( 1 ) = -7.854 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3.072 -3.072  
40.000 -2.2840 -3.153

ALPHA ( 1 ) = -3.959 BETA ( 2 ) = -3.844 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3.049 -3.094  
40.000 -2.2591 -3.3032

ALPHA ( 1 ) = -3.956 BETA ( 3 ) = .188 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -2.2836 -2.2862  
40.000 -3.3089 -3.3674

ALPHA ( 1 ) = -3.963 BETA ( 4 ) = 4.269 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -2.2636 -2.2605  
40.000 -3.3320 -3.3734

ORIGINAL PAGE IS  
OF POOR QUALITY

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF51)

ALPHA ( 1 ) = -3.980 BETA ( 5 ) = 8.339 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2688 -.2693  
40.000 -.3279 -.3665

ALPHA ( 2 ) = .060 BETA ( 1 ) = -7.891 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2985 -.3023  
40.000 -.2827 -.3075

ALPHA ( 2 ) = .070 BETA ( 2 ) = -3.863 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3006 -.3125  
40.000 -.2796 -.3115

ALPHA ( 2 ) = .075 BETA ( 3 ) = .185 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2653 -.2807  
40.000 -.3015 -.3550

ALPHA ( 2 ) = .070 BETA ( 4 ) = 4.248 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2710 -.2755  
40.000 -.3260 -.3641

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF51)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 2 ) = .066 BETA ( 5 ) = 8.300 MACH = .59520 Q = 593.99 P = 2397.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0120 1.0460

PHI

.000 -.2710 -.2627  
40.000 -.3242 -.3546

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -7.901 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2994 -.3100  
40.000 -.2897 -.3252

ALPHA ( 3 ) = 4.027 BETA ( 2 ) = -3.864 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.2994 -.3181  
40.000 -.2950 -.2970

ALPHA ( 3 ) = 4.029 BETA ( 3 ) = .191 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.2589 -.2652  
40.000 -.2946 -.3423

ALPHA ( 3 ) = 4.031 BETA ( 4 ) = 4.239 MACH = .59564 Q = 593.05 P = 2398.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.2749 -.2919  
40.000 -.3158 -.3513

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF51)

ALPHA ( 3 ) = 4.035 BETA ( 5 ) = 8.279 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8156

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 - .2730 - .2831  
40.000 - .3229 - .3603

ALPHA ( 4 ) = 8.061 BETA ( 1 ) = -7.886 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 - .2903 - .2927  
40.000 - .2998 - .3332

ALPHA ( 4 ) = 8.070 BETA ( 2 ) = -3.059 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 - .2881 - .3184  
40.000 - .2810 - .3167

ALPHA ( 4 ) = 8.069 BETA ( 3 ) = .180 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8358

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 - .2638 - .2697  
40.000 - .2855 - .3227

ALPHA ( 4 ) = 8.069 BETA ( 4 ) = 4.237 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8298

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 - .2709 - .2761  
40.000 - .3033 - .3338

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XEBF51)

ALPHA ( 5 ) = 8.063 BETA ( 5 ) = 8.294 MACH = .59572 Q = 593.16 P = 2387.6 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
000 -2727 -2857  
40.000 -3170 -3571

ALPHA ( 5 ) = 12.002 BETA ( 1 ) = -7.547 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
000 -2675 -2916  
40.000 -2864 -3271

ALPHA ( 5 ) = 12.023 BETA ( 2 ) = -3.840 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
000 -2781 -2923  
40.000 -2833 -3152

ALPHA ( 5 ) = 12.027 BETA ( 3 ) = .177 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
000 -2608 -2726  
40.000 -2856 -3186

ALPHA ( 5 ) = 12.024 BETA ( 4 ) = 4.250 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
000 -2656 -2723  
40.000 -3030 -3184

TABULATED PRESSURE DATA - QAINB ( AMES 11-073-1 )

AMES 11-073:JAI48) -140A/B/C/R ORB BODY FLAP UP

(XEBF51)

2N/L = 4.6257

ALPHA ( 5 ) = 12.010 BETA ( 5 ) = 8.307 MACH = .59550 Q = 592.6: P = 2396.1

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0462

PHI  
 .000 - .2592 - .2713  
 40.000 - .2977 - .3473

DATE 13 SEP 75 TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )  
 AXES 11-37310A148 -190A/3/C/R OPS BODY FLAP UP

YESF52) ( 05 AUG 75 )

PARAMETRIC DATA

RODGER = -12.000 SPDRK = 55.100  
 BODY = 15.000 -ELVN = -4.100  
 R-ELVN = 0.000 PACH = 1.400

REFERENCE DATA

SREF = 2635.000 SQ.FT. XMRP = 1075.6300 IN. XO  
 LREF = 474.8000 IN. XMRP = .0000 IN. YO  
 SREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0000

ALPHA ( 1 ) = -4.050 BETA ( 1 ) = -3.860 MACH = 1.3963 Q = 600.45 P = 439.94 RN/L = 2.9139

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3232 -1.3164  
 40.000 -1.3550 -1.3653

ALPHA ( 1 ) = -4.043 BETA ( 2 ) = .185 MACH = 1.3963 Q = 600.45 P = 439.94 RN/L = 2.9139

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3218 -1.3171  
 40.000 -1.3555 -1.3755

ALPHA ( 1 ) = -4.048 BETA ( 3 ) = 4.258 MACH = 1.3963 Q = 600.45 P = 439.94 RN/L = 2.9139

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3260 -1.3232  
 40.000 -1.3517 -1.3654

ALPHA ( 2 ) = -0.027 BETA ( 1 ) = -3.878 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3264 -1.3200  
 40.000 -1.3576 -1.3652

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TABULATED PRESSURE DATA - CA145 (AMES 11-073-1)

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AMES 11-073: 3) -1405/B/C/R ORB 50% FLAP UP

(X1.8F52)

ALPHA ( 2 ) = -.013 BETA ( 2 ) = .172 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3311 -.3307

40.000 -.3564 -.3663

ALPHA ( 2 ) = -.015 BETA ( 3 ) = 4.1 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3378 -.3413

40.000 -.3472 -.3639

ALPHA ( 3 ) = 3.910 BETA ( 1 ) = -3.886 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3389 -.3488

40.000 -.3308 -.3417

ALPHA ( 3 ) = 3.912 BETA ( 2 ) = .174 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3429 -.3431

40.000 -.3259 -.3330

ALPHA ( 3 ) = 3.916 BETA ( 3 ) = 4.236 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3498 -.3543

40.000 -.3328 -.3423



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEB52)

ALPHA ( 4 ) = 7.922 BETA ( 1 ) = -3.876 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3635 -.3659  
40.000 -.3362 -.3323

ALPHA ( 4 ) = 7.930 BETA ( 2 ) = .169 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI  
.000 -.3579 -.3636  
40.000 -.3281 -.3314

ALPHA ( 4 ) = 7.931 BETA ( 3 ) = 4.235 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3595 -.3645  
40.000 -.3277 -.3421

ALPHA ( 5 ) = 11.858 BETA ( 1 ) = -3.866 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9166

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3693 -.3695  
40.000 -.3400 -.3329

ALPHA ( 5 ) = 11.867 BETA ( 2 ) = .167 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9166

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3650 -.3697  
40.000 -.3352 -.3345

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP  
(XEBF52)

ALPHA ( 5 ) = 11.865 BETA ( 3 ) = 4.248 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3652 -.3706  
40.000 -.3496 -.3720

ALPHA ( 6 ) = 15.826 BETA ( 1 ) = -3.845 MACH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3663 -.3623  
40.000 -.3689 -.3750

ALPHA ( 6 ) = 15.841 BETA ( 2 ) = .165 CH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3627 -.3535  
40.000 -.3931 -.4077

ALPHA ( 6 ) = 15.833 BETA ( 3 ) = 4.274 MACH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3634 -.3405  
40.000 -.3936 -.4107

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5637

AMES 11-073(CA148) -140A/B/C/R ORB BODY FLAP UP

(XEBF53) ( 05 AUG 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 938.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.036 BETA ( 1 ) = -3.860 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3907 -3916  
40.000 -4332 -4469

ALPHA ( 2 ) = -4.029 BETA ( 2 ) = .182 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3959 -3918  
40.000 -4388 -44510

ALPHA ( 3 ) = -4.033 BETA ( 3 ) = 4.271 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4018 -4049  
40.000 -4298 -4466

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.861 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3960 -4007  
40.000 -4269 -4392

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
BDFLAP = 16.300 L-ELVN = -4.000  
R-ELVN = 4.000 MACH = 1.250

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TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF53)

ALPHA ( 2 ) = .001 BETA ( 2 ) = .178 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4022 -.4111  
40.000 -.4225 -.4343

ALPHA ( 2 ) = .000 BETA ( 3 ) = 4.247 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4142 -.4149  
40.000 -.4225 -.4419

ALPHA ( 3 ) = 3.944 BETA ( 1 ) = -3.877 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3853 -.3930  
40.000 -.3638 -.3718

ALPHA ( 3 ) = 3.945 BETA ( 2 ) = .180 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3954 -.3987  
40.000 -.3585 -.3628

ALPHA ( 3 ) = 3.949 BETA ( 3 ) = 4.232 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3965 -.4000  
40.000 -.3690 -.3712

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF53)

ALPHA ( 4 ) = 7.975 BETA ( 1 ) = -3.876 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4080 -.4101  
40.000 -.3704 -.3706

ALPHA ( 4 ) = 7.918 BETA ( 2 ) = .169 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4088 -.4128  
40.000 -.3694 -.3696

ALPHA ( 4 ) = 7.882 BETA ( 3 ) = 4.233 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4119 -.4168  
40.000 -.3715 -.3812

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.857 MACH = 1.2482 Q = 600.48 P = 550.64 RN/L = 3.0151

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4122 -.4134  
40.000 -.3950 -.3952

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .181 MACH = 1.2482 Q = 600.48 P = 550.64 RN/L = 3.0151

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4160 -.4231  
40.000 -.3908 -.3990ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140/18/C/R ORB BODY FLAP UP

(XEBF53)

ALPHA ( 5 ) = 11.925 BETA ( 3 ) = 4.245 MACH = 1.2482 Q = 600.48 P = 550.64 R/L = 3.0151

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE Q/P

X/LB 1.0180 1.0460

PHI

.000 -.4227 -.4336  
40.000 -.3930 -.4053

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5641

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF34) 05 AUG 75

REFERENCE DATA

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

RUDDER = -10.000 SPOBRK = 55.000  
BOFLAP = 16.300 L-ELVN = -4.000  
R-ELVN = 4.000 MACH = 1.100

ALPHA ( 1 ) = -3.970 BETA ( 1 ) = -3.853 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3970 -.4036  
40.000 -4191 -.4326

ALPHA ( 1 ) = -3.931 BETA ( 2 ) = .192 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3961 -.3982  
40.000 -4201 -.4527

ALPHA ( 1 ) = -3.991 BETA ( 3 ) = 4.263 MACH = 1.1014 Q = 500.89 P = 707.69 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4059 -.4158  
40.000 -4208 -.4538

ALPHA ( 2 ) = .009 BETA ( 1 ) = -3.870 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1864

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4051 -.4179  
40.000 -4398 -.4032

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEEF54)

ALPHA ( 2 ) = .092 BETA ( 2 ) = .176 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -3917 -4035  
40.000 -3967 -4206

ALPHA ( 3 ) = .026 BETA ( 3 ) = 4.243 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -4215 -4323  
40.000 -3962 -4064

ALPHA ( 3 ) = 3.932 BETA ( 1 ) = -3.873 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -4262 -4309  
40.000 -3962 -3965

ALPHA ( 3 ) = 3.933 BETA ( 2 ) = .171 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -4236 -4340  
40.000 -3891 -4045

ALPHA ( 3 ) = 3.943 BETA ( 3 ) = 4.232 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -4390 -4413  
40.000 -4175 -4201



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP UP (XE6F54)

ALPHA ( 4 ) = 7.506 BETA ( 1 ) = -3.871 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4550 -.4584  
40.000 -.45190 -.45140

ALPHA ( 4 ) = 8.006 BETA ( 2 ) = .170 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4452 -.4553  
40.000 -.4260 -.4248

ALPHA ( 4 ) = 8.008 BETA ( 3 ) = 4.224 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4578 -.4567  
40.000 -.4437 -.4361

ALPHA ( 5 ) = 11.922 BETA ( 1 ) = -3.854 MACH = 1.1005 Q = 600.31 P = 708.13 RN/L = 3.1832

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4632 -.4677  
40.000 -.4527 -.4510

ALPHA ( 5 ) = 11.941 BETA ( 2 ) = .179 MACH = 1.1005 Q = 600.31 P = 708.13 RN/L = 3.1832

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4453 -.4505  
40.000 -.4347 -.4486

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

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AXES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF54)

ALPHA ( 5 ) = 12.006 BETA ( 3 ) = 4.239 MACH = 1.1005 Q = 600.31 P = 708.13 PRN/L = 3.1832

SECTION : 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 - .4744 - .4779  
40.000 - .4649 - .4647

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -142A/B/C/R ORB BODY FLAP UP

IXEBF55) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 SREF = 935.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .3300

ALPHA ( 1 ) = -3.986 BETA ( 1 ) = -3.861 MACH = .90063 Q = 600.64 P = 1057.8 RAV/L = 3.5876

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
 .000 -2985 -7016  
 40.000 -3205 -3683

ALPHA ( 1 ) = -3.982 BETA ( 2 ) = .179 MACH = .90063 Q = 600.64 P = 1057.8 RAV/L = 3.5876

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
 .000 -2977 -73041  
 40.000 -3312 -3617

ALPHA ( 1 ) = -3.962 BETA ( 3 ) = 4.262 MACH = .90063 Q = 600.64 P = 1057.8 RAV/L = 3.5876

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
 .000 -3082 -73188  
 40.000 -3126 -3365

ALPHA ( 2 ) = .074 BETA ( 1 ) = -3.874 MACH = .89883 Q = 599.15 P = 1059.5 RAV/L = 3.5834

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0450

PHI  
 .000 -2989 -73039  
 40.000 -3112 -3347

## PARAMETRIC DATA

RUDDER = -10.000 SPDGRK = 55.000  
 BOFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = 4.000 MACH = .900

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP (XLB55)

ALPHA ( 2 ) = .080 BETA ( 2 ) = .167 MACH = .89883 Q = 599.16 P = 1059.5 RN/L = 3.5834

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2865 -.3056  
40.000 -.2981 -.3393

ALPHA ( 2 ) = .067 BETA ( 3 ) = 4.244 MACH = .89883 Q = 599.16 P = 1059.5 RN/L = 3.5834

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2938 -.3101  
40.000 -.3175 -.3321

ALPHA ( 3 ) = 3.946 BETA ( 1 ) = -3.879 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3135 -.3099  
40.000 -.2978 -.3252

ALPHA ( 3 ) = 3.951 BETA ( 2 ) = .176 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2915 -.3005  
40.000 -.2975 -.3113

ALPHA ( 3 ) = 3.956 BETA ( 3 ) = 4.235 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2967 -.3088  
40.000 -.2974 -.3073

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F55)

ALPHA ( 4 ) = 7.893 BETA ( 1 ) = -3.876 MACH = .89863 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3095 -.3099  
40.000 -.2948 -.2979

ALPHA ( 4 ) = 8.030 BETA ( 2 ) = .173 MACH = .89863 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2099 -.2983  
40.000 -.2744 -.2860

ALPHA ( 4 ) = 8.015 BETA ( 3 ) = 4.230 MACH = .89863 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3116 -.3079  
40.000 -.2777 -.2821

ALPHA ( 5 ) = 11.973 BETA ( 1 ) = -3.861 MACH = .89910 Q = 599.49 P = 1059.5 RN/L = 3.5890

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3333 -.3317  
40.000 -.3031 -.2936

ALPHA ( 5 ) = 11.987 BETA ( 2 ) = .182 MACH = .89910 Q = 599.49 P = 1059.5 RN/L = 3.5890

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3149 -.3170  
40.000 -.2841 -.2919

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF55)

ALPHA ( 5 ) = 12.005 BETA ( 3 ) = 4.250 MACH = .89910 Q = 599.49 P = 1059.5 RN/L = 3.5890

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0150 1.0450

PHI

.000 -.3201 -.3224  
40.000 -.2860 -.2910

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5649

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF56) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
BREF = 936.0080 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA ( 1 ) = -4.044 BETA ( 1 ) = -7.862 MACH = .59674 Q = 594.66 P = 2385.6 RN/L = 4.8797

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2459 -2438  
40.000 -2776 -3116

ALPHA ( 2 ) = -3.971 BETA ( 2 ) = -3.856 MACH = .59674 Q = 594.66 P = 2385.6 RN/L = 4.8797

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2482 -2388  
40.000 -2758 -3122

ALPHA ( 3 ) = -3.944 BETA ( 3 ) = .179 MACH = .59674 Q = 594.66 P = 2385.6 RN/L = 4.8797

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2417 -2476  
40.000 -2816 -3173

ALPHA ( 4 ) = -3.952 BETA ( 4 ) = 4.259 MACH = .59674 Q = 594.66 P = 2385.6 RN/L = 4.8797

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2441 -2559  
40.000 -2741 -3038

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 55.000  
BOFLAP = 16.300 L-ELVN = -4.000  
R-ELVN = 4.000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF56)

ALPHA ( 1 ) = -3.967 BETA ( 5 ) = 8.330 MACH = .59674 Q = 594.66 P = 2385.6 RN/L = 4.8797

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2586 -.2585  
40.000 -.2652 -.3058

ALPHA ( 2 ) = .082 BETA ( 1 ) = -7.901 MACH = .59728 Q = 595.74 P = 2385.6 RN/L = 4.8906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2538 -.2498  
40.000 -.2774 -.3117

ALPHA ( 2 ) = .093 BETA ( 2 ) = -3.873 MACH = .59728 Q = 595.74 P = 2385.6 RN/L = 4.8906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2435 -.2529  
40.000 -.2802 -.3016

ALPHA ( 2 ) = .095 BETA ( 3 ) = .179 MACH = .59728 Q = 595.74 P = 2385.6 RN/L = 4.8906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2493 -.2620  
40.000 -.2754 -.3055

ALPHA ( 2 ) = .092 BETA ( 4 ) = 4.242 MACH = .59728 Q = 595.74 P = 2385.6 RN/L = 4.8906

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2477 -.2568  
40.000 -.2792 -.3113



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF56)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 2 ) = .089 BETA ( 5 ) = 8.298 MACH = .59728 Q = 595.74 P = 2385.6 RN/L = 4.8906

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2697 -.2792  
40.000 -.2695 -.2928

ALPHA ( 3 ) = 4.036 BETA ( 1 ) = -7.914 MACH = .59696 Q = 595.02 P = 2385.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2592 -.2585  
40.000 -.2897 -.3154

ALPHA ( 3 ) = 4.041 BETA ( 2 ) = -3.873 MACH = .59696 Q = 595.02 P = 2385.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2544 -.2622  
40.000 -.2804 -.3088

ALPHA ( 3 ) = 4.096 BETA ( 3 ) = .178 MACH = .59696 Q = 595.02 P = 2385.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2465 -.2552  
40.000 -.2552 -.2845

ALPHA ( 3 ) = 3.977 BETA ( 4 ) = 4.232 MACH = .59696 Q = 595.02 P = 2385.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2664 -.2592  
40.000 -.2655 -.2841

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF56)

ALPHA ( 3 ) = 4.011 BETA ( 5 ) = 8.279 MACH = .59696 Q = 595.02 P = 2385.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2820 -.2973  
40.000 -.2508 -.2648

ALPHA ( 4 ) = 8.004 BETA ( 1 ) = -7.903 MACH = .59678 Q = 594.78 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2636 -.2683  
40.000 -.2950 -.3307

ALPHA ( 4 ) = 8.017 BETA ( 2 ) = -3.872 MACH = .59678 Q = 594.78 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2628 -.2689  
40.000 -.2763 -.3053

ALPHA ( 4 ) = 7.965 BETA ( 3 ) = .166 MACH = .59678 Q = 594.78 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2583 -.2616  
40.000 -.2580 -.2703

ALPHA ( 4 ) = 7.931 BETA ( 4 ) = 4.229 MACH = .59678 Q = 594.78 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2671 -.2813  
40.000 -.2463 -.2548

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF56)

ALPHA ( 4 ) = 7.987 BETA ( 5 ) = 8.286 MACH = .59678 Q = 594.78 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3038 -.3035  
40.000 -.2516 -.2570

ALPHA ( 5 ) = 11.920 BETA ( 1 ) = -7.867 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2579 -.2770  
40.000 -.2900 -.3256

ALPHA ( 5 ) = 11.942 BETA ( 2 ) = -3.850 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2740 -.2875  
40.000 -.2669 -.2867

ALPHA ( 5 ) = 12.055 BETA ( 3 ) = .145 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2680 -.2675  
40.000 -.2434 -.2578

ALPHA ( 5 ) = 12.053 BETA ( 4 ) = 4.239 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2895 -.2808  
40.000 -.2382 -.2557

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF56)

ALPHA ( 5 ) = 12.101 BETA ( 5 ) = 8.299 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2812 -.2899  
40.000 -.2411 -.2791

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( ANES 11-073-1 )

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(XEBF57) ( 05 AUG 75 )

ANES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.843 MACH = 1.3927 Q = 599.59 P = 441.59 RN/L = 2.9055

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.184 -3.125  
 40.000 -3.3406 -3.3496

ALPHA ( 1 ) = -3.938 BETA ( 2 ) = .202 MACH = 1.3927 Q = 599.59 P = 441.59 RN/L = 2.9055

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3240 -3.3110  
 40.000 -3.3370 -3.3534

ALPHA ( 1 ) = -4.001 BETA ( 3 ) = 4.282 MACH = 1.3927 Q = 599.59 P = 441.59 RN/L = 2.9055

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3314 -3.3269  
 40.000 -3.3340 -3.3497

ALPHA ( 2 ) = .015 BETA ( 1 ) = -3.863 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.3324 -3.3315  
 40.000 -3.3457 -3.3544

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.0000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = 1.400

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF57)

ALPHA ( 2 ) = .021 BETA ( 2 ) = .195 MACH = 1.3931 Q = 599.59 P = 441.35 RN/L = 2.9062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3344 -.3259  
40.000 -.3425 -.3569

ALPHA ( 2 ) = .016 BETA ( 3 ) = 4.262 MACH = 1.3931 Q = 599.59 P = 441.35 RN/L = 2.9062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3375 -.3332  
40.000 -.3476 -.3628

ALPHA ( 3 ) = 3.900 BETA ( 1 ) = -3.867 MACH = 1.3926 Q = 599.48 P = 441.59 RN/L = 2.9063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3431 -.3481  
40.000 -.3512 -.3609

ALPHA ( 3 ) = 4.005 BETA ( 2 ) = .197 MACH = 1.3926 Q = 599.48 P = 441.59 RN/L = 2.9063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3458 -.3477  
40.000 -.3479 -.3609

ALPHA ( 3 ) = 3.907 BETA ( 3 ) = 4.252 MACH = 1.3926 Q = 599.48 P = 441.59 RN/L = 2.9063

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3384 -.3414  
40.000 -.3464 -.3668

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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1XE8F57)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 4 ) = 7.945 BETA ( 1 ) = -3.862 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8969

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI	
.000	-.3568
40.000	-.3698

ALPHA ( 4 ) = 7.917 BETA ( 2 ) = .187 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8969

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI	
.000	-.3542
40.000	-.3646

ALPHA ( 4 ) = 7.849 BETA ( 3 ) = 4.251 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8969

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI	
.000	-.3665
40.000	-.3686

ALPHA ( 5 ) = 11.907 BETA ( 1 ) = -3.847 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI	
.000	-.3537
40.000	-.3781

ALPHA ( 5 ) = 11.890 BETA ( 2 ) = .186 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI	
.000	-.3563
40.000	-.3810

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(XE9F57)

ALPHA ( 5 ) = 11.000 BETA ( 3 ) = 4.265 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION : 1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3379 -3378  
40.000 -33750 -3840

ALPHA ( 5 ) = 15.871 BETA ( 1 ) = -3.822 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9065

SECTION : 1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -3372 -3377  
40.000 -3802 -4015

ALPHA ( 5 ) = 15.883 BETA ( 2 ) = .187 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9065

SECTION : 1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -33697 -33505  
40.000 -4012 -4204

ALPHA ( 5 ) = 15.915 BETA ( 3 ) = 4.292 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9065

SECTION : 1) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -33680 -33492  
40.000 -4003 -4207



(XEBF58) 1 05 AUG 75

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

REFERENCE DATA

XREF = 2550.0000 SQ.FT. XREF = 1076.5800 IN. XO  
 YREF = 474.8000 IN. YREF = .0000 IN. YO  
 ZREF = 555.0000 IN. ZREF = 375.0000 IN. ZO  
 SCALE = 10.000

ALPHA ( 1 ) = -4.015 BETA ( 1 ) = -3.834 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

SECTION 1 ORB BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.3580 -1.3538  
 .000 -1.3580 -1.3538

ALPHA ( 2 ) = -4.012 BETA ( 2 ) = .202 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

SECTION 1 ORB BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.3532 -1.3529  
 .000 -1.3532 -1.3529

ALPHA ( 3 ) = -4.007 BETA ( 3 ) = 4.280 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

SECTION 1 ORB BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.3656 -1.3692  
 .000 -1.3687 -1.3692

ALPHA ( 2 ) = .035 BETA ( 1 ) = -3.858 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0093

SECTION 1 ORB BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.3720 -1.3699  
 .000 -1.3629 -1.3617

PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = 55.000  
 BDFLAP = 15.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = 1.250

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/M ORB BODY FLAP UP

(XEBF59)

ALPHA ( 2 ) = .040 BETA ( 2 ) = .189 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 5.0393

SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X-13 1.0180 1.0450

PHI  
-0.000 -0.3634 -0.3597  
+0.000 -0.3774 -0.3916

ALPHA ( 3 ) = .037 BETA ( 3 ) = 4.261 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 5.0393

SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X-13 1.0180 1.0450

PHI  
-0.000 -0.3725 -0.3745  
+0.000 -0.3746 -0.3956

ALPHA ( 3 ) = 3.928 BETA ( 1 ) = -3.861 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 5.0120

SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X-13 1.0180 1.0450

PHI  
-0.000 -0.3848 -0.3927  
+0.000 -0.3957 -0.4054

ALPHA ( 3 ) = 3.929 BETA ( 2 ) = .192 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 5.0120

SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X-13 1.0180 1.0450

PHI  
-0.000 -0.3941 -0.4014  
+0.000 -0.4019 -0.4201

ALPHA ( 3 ) = 3.933 BETA ( 3 ) = 4.251 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 5.0120

SECTION 1 : BODY FLAP UPPER DEPENDENT VARIABLE CP

X-13 1.0180 1.0450

PHI  
-0.000 -0.2213 -0.2853  
+0.000 -0.3322 -0.4104

DATE 13 FEB 70

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF58)

ALPHA ( 4 ) = 7.566 BETA ( 1 ) = -3.855 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4075 -.4127  
40.000 -.4187 -.4319

ALPHA ( 4 ) = 7.970 BETA ( 2 ) = .187 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4058 -.4155  
40.000 -.4167 -.4314

ALPHA ( 4 ) = 7.894 BETA ( 3 ) = 4.250 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4121 -.4180  
40.000 -.4180 -.4308

ALPHA ( 5 ) = 11.923 BETA ( 1 ) = -3.838 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0114

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4282 -.4365  
40.000 -.4327 -.4566

ALPHA ( 5 ) = 11.931 BETA ( 2 ) = .197 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0114

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4207 -.4186  
40.000 -.4255 -.4504

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEB-58)

ALPHA ( 5 ) = 11.925 BETA ( 3 ) = 4.259 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0114

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LS 1.0180 1.0460

PHI

.000 -.4036 -.4207  
40.000 -.4228 -.4532

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF59) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BRP = 935.0550 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BOFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = 1.100

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.831 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.082 -4.117  
 40.000 -4.257 -4.435

ALPHA ( 1 ) = -3.894 BETA ( 2 ) = .203 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.990 -4.042  
 40.000 -4.068 -4.271

ALPHA ( 1 ) = -4.013 BETA ( 3 ) = 4.281 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.016 -4.090  
 40.000 -4.180 -4.562

ALPHA ( 2 ) = .051 BETA ( 1 ) = -3.852 MACH = 1.1008 Q = 600.03 P = 707.43 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.189 -4.298  
 40.000 -4.343 -4.457

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF59)

ALPHA ( 2 ) = .053 BETA ( 2 ) = .191 MACH = 1.1008 Q = 600.03 P = 707.43 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3997 -.4016  
40.000 -.4158 -.4371

ALPHA ( 2 ) = .049 BETA ( 3 ) = 4.255 MACH = 1.1008 Q = 600.03 P = 707.43 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4001 -.4046  
40.000 -.4169 -.4443

ALPHA ( 3 ) = 3.965 BETA ( 1 ) = -3.853 MACH = 1.1009 Q = 600.17 P = 707.44 RN/L = 3.1827

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4283 -.4298  
40.000 -.4369 -.4513

ALPHA ( 3 ) = 3.964 BETA ( 2 ) = .193 MACH = 1.1009 Q = 600.17 P = 707.44 RN/L = 3.1827

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4252 -.4415  
40.000 -.4432 -.4652

ALPHA ( 3 ) = 3.966 BETA ( 3 ) = 4.249 MACH = 1.1009 Q = 600.17 P = 707.44 RN/L = 3.1827

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4227 -.4320  
40.000 -.4428 -.4497

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEF59)

ALPHA ( 4 ) = 7.908 BETA ( 1 ) = -3.848 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4544 -1.4503  
40.000 -1.4586 -1.4776

ALPHA ( 4 ) = 7.912 BETA ( 2 ) = .189 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4353 -1.4393  
40.000 -1.4473 -1.4732

ALPHA ( 4 ) = 7.911 BETA ( 3 ) = 4.247 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4516 -1.4699  
40.000 -1.4571 -1.4852

ALPHA ( 5 ) = 11.969 BETA ( 1 ) = -3.832 MACH = 1.0972 Q = 598.33 P = 710.00 RN/L = 3.1878

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4856 -1.4771  
40.000 -1.4900 -1.5222

ALPHA ( 5 ) = 11.872 BETA ( 2 ) = .197 MACH = 1.0972 Q = 598.33 P = 710.00 RN/L = 3.1878

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4424 -1.4443  
40.000 -1.4528 -1.4934

DATE 13 FEB 75

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5666

AMES 11-073(OA148) -140A/B/C/R CRB BODY FLAP UP

(XE8F59)

ALPHA ( 5 ) = 11.865 BETA ( 3 ) = 4.258 MACH = 1.0972 Q = 598.33 P = 710.00 RN/L = 3.1878

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

40.000 -4.564 -4.595  
-4.713 -4.5012



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5667

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF60) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2600.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.0000 IN. YMRP = .0000 IN. YO  
 SREF = 920.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0500

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.841 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3051 -.2968  
 40.000 -.3126 -.3446

ALPHA ( 1 ) = -4.026 BETA ( 2 ) = .202 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3123 -.3286  
 40.000 -.3345 -.3403

ALPHA ( 1 ) = -3.984 BETA ( 3 ) = 4.285 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3079 -.3163  
 40.000 -.3334 -.3408

ALPHA ( 2 ) = .056 BETA ( 1 ) = -3.856 MACH = .89813 Q = 598.75 P = 1060.5 RN/L = 3.5631

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -.3009 -.2951  
 40.000 -.3179 -.3415

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1.1 )

PAGE 5668

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XE8F60)

ALPHA ( 2 ) = .056 BETA ( 2 ) = .186 MACH = .89813 Q = 598.75 P = 1050.5 RN/L = 3.5631

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3062 -.3010

40.000 -.3074 -.3247

ALPHA ( 2 ) = .048 BETA ( 3 ) = 4.260 MACH = .89813 Q = 598.75 P = 1050.5 RN/L = 3.5631

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2935 -.3055

40.000 -.3157 -.3392

ALPHA ( 3 ) = 3.975 BETA ( 1 ) = -3.861 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2939 -.2957

40.000 -.3124 -.3311

ALPHA ( 3 ) = 4.019 BETA ( 2 ) = .193 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2862 -.2902

40.000 -.2926 -.3231

ALPHA ( 3 ) = 3.944 BETA ( 3 ) = 4.262 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2849 -.2923

40.000 -.3126 -.3403

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5669

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF60)

ALPHA ( 4 ) = 8.020 BETA ( 1 ) = -3.857 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2944 -.2944

40.000 -.3050 -.3197

ALPHA ( 4 ) = 8.028 BETA ( 2 ) = .194 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2844 -.2946

40.000 -.2975 -.3198

ALPHA ( 4 ) = 8.024 BETA ( 3 ) = 4.248 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2878 -.2937

40.000 -.3100 -.3273

ALPHA ( 5 ) = 11.919 BETA ( 1 ) = -3.839 MACH = .89963 Q = 599.94 P = 1059.0 RN/L = 3.5645

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2975 -.3052

40.000 -.3155 -.3261

ALPHA ( 5 ) = 11.929 BETA ( 2 ) = .180 MACH = .89963 Q = 599.94 P = 1059.0 RN/L = 3.5645

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2847 -.2899

40.000 -.2987 -.3193

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5670

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF60)

ALPHA ( 5 ) = 11.915 BETA ( 3 ) = 4.258 MACH = .89963 0 = 599.94 P = 1059.0 RN/L = 3.5645

SECTION / BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3186 -.3345  
42.000 -.3248 -.3365

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5671

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP UP

(YESF61) ( 05 AUG 76 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YREF = 474.8000 IN. YMRP = .0000 IN. YO  
 ZREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.014 BETA ( 1 ) = -7.854 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2522 -2451  
 40.000 -2874 -3224

ALPHA ( 1 ) = -3.998 BETA ( 2 ) = -3.832 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2521 -2552  
 40.000 -2864 -3233

ALPHA ( 1 ) = -3.980 BETA ( 3 ) = .201 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2541 -2498  
 40.000 -2822 -3148

ALPHA ( 1 ) = -3.988 BETA ( 4 ) = 4.282 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2363 -2426  
 40.000 -2821 -321

## PARAMETRIC DATA

RUDDER = 10.000 SPDRK = 55.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = .600

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OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5672

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF61)

ALPHA ( 1 ) = -4.005 BETA ( 5 ) = 8.352 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2437 -1.2510  
-0.000 -1.2810 -1.3109

ALPHA ( 2 ) = .015 BETA ( 1 ) = -7.895 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2512 -1.2579  
-0.000 -1.2925 -1.3192

ALPHA ( 2 ) = .022 BETA ( 2 ) = -3.851 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2541 -1.2484  
-0.000 -1.2808 -1.3113

ALPHA ( 2 ) = .105 BETA ( 3 ) = .189 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2472 -1.2483  
-0.000 -1.2741 -1.3098

ALPHA ( 2 ) = .100 BETA ( 4 ) = 4.264 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2478 -1.2419  
-0.000 -1.2864 -1.3126

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5673

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF61)

ALPHA ( 2 ) = .094 BETA ( 5 ) = 8.317 MACH = .59624 Q = 593.85 P = 2336.1 RN/L = 4.8452

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2489 -1.2548  
40.000 -1.2854 -1.3197

ALPHA ( 3 ) = 4.024 BETA ( 1 ) = -7.901 MACH = .59706

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2614 -1.2724  
40.000 -1.2892 -1.3092

ALPHA ( 3 ) = 4.025 BETA ( 2 ) = -3.849 MACH = .59706

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2519 -1.2640  
40.000 -1.2873 -1.3099

ALPHA ( 3 ) = 4.034 BETA ( 3 ) = .195 MACH = .59706

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2560 -1.2626  
40.000 -1.2761 -1.2969

ALPHA ( 3 ) = 4.044 BETA ( 4 ) = 4.254 MACH = .59706

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2466 -1.2568  
40.000 -1.2809 -1.3166

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5874

AMES 11-073(0A148) -140A/B/C/R CRB BODY FLAP UP

(XEBF611)

ALPHA ( 3 ) = 4.047 BETA ( 5 ) = 8.299 MACH = .59706 Q = 595.26 P = 2385.14 PN/L = 4.853

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2608 -1.2648  
40.000 -1.2873 -1.3210

ALPHA ( 4 ) = 8.028 BETA ( 1 ) = -7.897 MACH = .59720 Q = 595.49 P = 2385.3 PN/L = 4.853

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2675 -1.2959  
40.000 -1.3031 -1.3123

ALPHA ( 4 ) = 8.037 BETA ( 2 ) = -3.847 MACH = .59720 Q = 595.49 P = 2385.3 PN/L = 4.853

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2534 -1.2595  
40.000 -1.2786 -1.3014

ALPHA ( 4 ) = 8.042 BETA ( 3 ) = .196 MACH = .59720 Q = 595.49 P = 2385.3 PN/L = 4.853

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2450 -1.2502  
40.000 -1.2636 -1.2783

ALPHA ( 4 ) = 7.960 BETA ( 4 ) = 4.251 MACH = .59720 Q = 595.49 P = 2385.3 PN/L = 4.853

SECTION 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2551 -1.2542  
40.000 -1.2747 -1.3061



DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5675

AMES 11-073(0A148) -140A/E/C/R ORB BODY FLAP UP (XEBF61)

ALPHA ( 4 ) = 7.955 BETA ( 5 ) = 8.305 MACH = .59720 Q = 595.44 P = 2385.3 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2563 -.2682  
40.000 -.2743 -.3215

ALPHA ( 5 ) = 11.943 BETA ( 1 ) = -7.853 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2574 -.2774  
40.000 -.2664 -.3027

ALPHA ( 5 ) = 11.962 BETA ( 2 ) = -3.827 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2572 -.2610  
40.000 -.2713 -.2919

ALPHA ( 5 ) = 11.957 BETA ( 3 ) = .197 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2479 -.2581  
40.000 -.2666 -.2798

ALPHA ( 5 ) = 11.963 BETA ( 4 ) = 4.259 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2561 -.2542  
40.000 -.2729 -.2971

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5676

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF61)

ALPHA ( 5 ) = 11.951 BETA ( 5 ) = 8.316 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION : 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2531 -.2668  
40.000 -.2718 -.3253

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5677

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF62) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 250.000 SQ.FT. XMRP = 1076.6300 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 95.0590 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 0.000

ALPHA ( 1 ) = -4.059 BETA ( 1 ) = -3.849 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3344 -.3226  
 40.000 -.3628 -.3732

ALPHA ( 1 ) = -3.922 BETA ( 2 ) = .195 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3301 -.3123  
 40.000 -.3595 -.3704

ALPHA ( 1 ) = -3.930 BETA ( 3 ) = 4.280 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3350 -.3255  
 40.000 -.3501 -.3693

ALPHA ( 2 ) = .024 BETA ( 1 ) = -3.867 MACH = 1.3922 Q = 599.78 P = 442.05 RN/L = 2.9172

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3338 -.3260  
 40.000 -.3658 -.3769

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRX = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = 1.400

ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5678

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F62)

ALPHA ( 2 ) = .029 BETA ( 2 ) = .195 MACH = 1.3922 Q = 599.78 P = 442.06 RN/L = 2.9172

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3392 -.3287  
40.000 -.3665 -.3772

ALPHA ( 2 ) = .025 BETA ( 3 ) = 4.257 MACH = 1.3922 Q = 599.78 P = 442.06 RN/L = 2.9172

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3477 -.3413  
40.000 -.3616 -.3742

ALPHA ( 3 ) = 3.958 BETA ( 1 ) = -3.867 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3336 -.3265  
40.000 -.3613 -.3705

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = .187 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3369 -.3324  
40.000 -.3588 -.3695

ALPHA ( 3 ) = 3.963 BETA ( 3 ) = 4.246 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3469 -.3457  
40.000 -.3531 -.3671

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5579

AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP UP

(XEBF62)

ALPHA ( 4 ) = 7.927 BETA ( 1 ) = -3.866 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3444 -3368  
40.000 -3692 -3808

ALPHA ( 4 ) = 7.932 BETA ( 2 ) = .179 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3428 -3355  
40.000 -3582 -3719

ALPHA ( 4 ) = 7.933 BETA ( 3 ) = 4.245 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3487 -3413  
40.000 -3505 -3816

ALPHA ( 5 ) = 11.912 BETA ( 1 ) = -3.854 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3600 -3626  
40.000 -3524 -3645

ALPHA ( 5 ) = 11.921 BETA ( 2 ) = .184 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3430 -3430  
40.000 -3572 -3785

LATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF62)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 11.919 BETA ( 3 ) = 4.258 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3578 -.3540  
40.000 -.3637 -.4071

ALPHA ( 6 ) = 15.912 BETA ( 1 ) = -3.830 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3786 -.3605  
40.000 -.3732 -.3703

ALPHA ( 6 ) = 15.924 BETA ( 2 ) = .184 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3811 -.3515  
40.000 -.3983 -.4133

ALPHA ( 6 ) = 15.916 BETA ( 3 ) = 4.288 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3740 -.3493  
40.000 -.4019 -.4213

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5681

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF63)

( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.050 BETA ( 1 ) = -3.840 MACH = 1.2459 Q = 600.11 P = 552.28 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3510 -3506  
 40.000 -3980 -4098

ALPHA ( 1 ) = -3.916 BETA ( 2 ) = .196 MACH = 1.2459 Q = 600.11 P = 552.28 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3559 -3450  
 40.000 -3314 -4023

ALPHA ( 1 ) = -3.923 BETA ( 3 ) = 4.275 MACH = 1.2459 Q = 600.11 P = 552.28 RN/L = 3.0241

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3565 -3568  
 40.000 -3784 -3912

ALPHA ( 2 ) = .044 BETA ( 1 ) = -3.864 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3695 -3653  
 40.000 -4015 -4155

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5682

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF63)

ALPHA ( 2 ) = .050 BETA ( 2 ) = .180 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3674 -.3600  
40.000 -.3942 -.4079

ALPHA ( 2 ) = .046 BETA ( 3 ) = 4.256 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3957 -.3970  
40.000 -.3813 -.3993

ALPHA ( 3 ) = 3.990 BETA ( 1 ) = -3.864 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3715 -.3584  
40.000 -.3954 -.4058

ALPHA ( 3 ) = 3.991 BETA ( 2 ) = .185 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3788 -.3705  
40.000 -.3992 -.4099

ALPHA ( 3 ) = 3.994 BETA ( 3 ) = 4.245 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3928 -.3945  
40.000 -.3847 -.3940



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5683

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBFS3)

ALPHA ( 4 ) = 7.968 BETA ( 1 ) = -3.863 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3843 -.3773  
40.000 -.4127 -.4236

ALPHA ( 4 ) = 7.973 BETA ( 2 ) = .179 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3900 -.3820  
40.000 -.4126 -.4226

ALPHA ( 4 ) = 7.897 BETA ( 3 ) = 4.244 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4042 -.4046  
40.000 -.4099 -.4231

ALPHA ( 5 ) = 11.969 BETA ( 1 ) = -3.850 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3935 -.3955  
40.000 -.4130 -.4271

ALPHA ( 5 ) = 11.877 BETA ( 2 ) = .185 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3875 -.3868  
40.000 -.4146 -.4329

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5684

AMES 11-073(0A148) -140A/B/C R ORB BODY FLAP UP (XE8F63)

ALPHA ( 5 ) = 11.890 BETA ( 3 ) = 4.256 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223 -

SECTION 1 : BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4007 -.3995  
40.000 -.4268 -.4485

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AXES 11-073-1 )

PAGE 5685

AXES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF64) ( 05 AUG 75 )

## REFERENCE DATA

SRFP = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRFP = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.951 BETA ( 1 ) = -3.840 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 -1.4018 -1.4034  
 40.000 -1.4234 -1.4345

ALPHA ( 1 ) = -3.948 BETA ( 2 ) = .196 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3878 -1.3931  
 40.000 -1.4025 -1.4208

ALPHA ( 1 ) = -3.942 BETA ( 3 ) = 4.273 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.4141 -1.4222  
 40.000 -1.3973 -1.4073

ALPHA ( 2 ) = .059 BETA ( 1 ) = -3.863 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

## SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.4046 -1.4063  
 40.000 -1.4260 -1.4312

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRK = 55.000  
 SDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R CRB BODY FLAP UP  
(XEBF64)

ALPHA ( 2 ) = .062 BETA ( 2 ) = .193 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3937 -.3961  
40.000 -.4070 -.4283

ALPHA ( 2 ) = .059 BETA ( 3 ) = 4.253 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4209 -.4297  
40.000 -.3881 -.3957

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -3.865 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4149 -.4130  
40.000 -.4315 -.4384

ALPHA ( 3 ) = 4.021 BETA ( 2 ) = .178 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4115 -.4055  
40.000 -.4295 -.4423

ALPHA ( 3 ) = 4.024 BETA ( 3 ) = 4.243 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.4350 -.4321  
40.000 -.3992 -.4108

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5687

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP UP (XEBF54)

ALPHA ( 4 ) = 7.977 BETA ( 1 ) = -3.859 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.4360 -1.4355  
40.000 -1.4597 -1.4559

ALPHA ( 4 ) = 7.981 BETA ( 2 ) = .181 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.4339 -1.4231  
40.000 -1.4518 -1.4593

ALPHA ( 4 ) = 7.930 BETA ( 3 ) = 4.237 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.4631 -1.4581  
40.000 -1.4338 -1.4421

ALPHA ( 5 ) = 11.919 BETA ( 1 ) = -3.844 MACH = 1.0980 Q = 599.84 P = 710.72 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.4455 -1.4452  
40.000 -1.4558 -1.4528

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .189 MACH = 1.0980 Q = 599.84 P = 710.72 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.4240 -1.4237  
40.000 -1.4534 -1.4529ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5588

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEB7B-)

ALPHA ( DEG ) = 11.925 BETA ( DEG ) = 4.249 MACH = 1.0980 Q = 599.84 P = 710.72 R/L = 3.1950

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LE 1.0100 1.0480

PH

1.000 -1.4588 -1.4716

10.000 -1.4551 -1.4626

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5689

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF65) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2800.0000 SQ.FT. XMRP = 1075.6800 IN. X0  
LREF = 474.8500 IN. YMRP = .0000 IN. Y0  
BREF = 956.0580 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

PARAMETRIC DATA

RUDDER = 5.000 SPDRK = 55.000  
BDFLAP = 16.300 L-ELVN = -4.000  
R-ELVN = -4.000 MACH = .900

ALPHA ( 1 ) = -3.965 BETA ( 1 ) = -3.937 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2928 -.2949  
40.000 -.3216 -.3677

ALPHA ( 1 ) = -3.963 BETA ( 2 ) = .195 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2930 -.3130  
40.000 -.3106 -.3518

ALPHA ( 1 ) = -3.957 BETA ( 3 ) = 4.274 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3107 -.3244  
40.000 -.2913 -.3215

ALPHA ( 2 ) = .052 BETA ( 1 ) = -3.869 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3021 -.2955  
40.000 -.3274 -.3546

DATE 13 FEB 76

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## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF65)

ALPHA ( 2 ) = .054 BETA ( 2 ) = .179 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2985 -.3014  
40.000 -.3056 -.3330

ALPHA ( 2 ) = .050 BETA ( 3 ) = 4.252 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3022 -.3115  
40.000 -.2916 -.3110

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -3.873 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3079 -.3133  
40.000 -.3233 -.3387

ALPHA ( 3 ) = 4.021 BETA ( 2 ) = .183 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2895 -.2972  
40.000 -.3057 -.3144

ALPHA ( 3 ) = 4.023 BETA ( 3 ) = 4.246 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

## SECTION 1 BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3003 -.3067  
40.000 -.2752 -.2991



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF65)

ALPHA ( 4 ) = 7.876 BETA ( 1 ) = -3.866 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2953 -.2973  
40.000 -.3108 -.3233

ALPHA ( 4 ) = 7.884 BETA ( 2 ) = .183 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2837 -.2935  
40.000 -.2956 -.3089

ALPHA ( 4 ) = 7.892 BETA ( 3 ) = 4.244 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.2952 -.3023  
40.000 -.2684 -.2902

ALPHA ( 5 ) = 11.937 BETA ( 1 ) = -3.854 MACH = .89780 Q = 598.05 P = 1060.0 RN/L = 3.5707

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2851 -.2903  
40.000 -.3137 -.3254

ALPHA ( 5 ) = 11.920 BETA ( 2 ) = .190 MACH = .89780 Q = 598.05 P = 1060.0 RN/L = 3.5707

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2873 -.2872  
40.000 -.2918 -.2975

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF65)

ALPHA ( 5 ) = 11.907    BETA ( 3 ) = 4.258    MACH = .89780    Q = 598.05    P = 1060.0    RN/L = 3.5707

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    -.2803    -.2945  
40.000    -.2850    -.2974

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5693

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F66) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 336.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -7.846 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0100 1.0460

PHI  
 .000 -.2601 -.2530  
 40.000 -.2954 -.3219

ALPHA ( 1 ) = -3.899 BETA ( 2 ) = -3.843 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2528 -.2451  
 40.000 -.2933 -.3219

ALPHA ( 1 ) = -3.894 BETA ( 3 ) = .194 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2457 -.2529  
 40.000 -.2832 -.3191

ALPHA ( 1 ) = -3.902 BETA ( 4 ) = 4.271 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2485 -.2444  
 40.000 -.2758 -.3016

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) - 40A/B/C/R ORB BODY FLAP UP (XE8F66)

ALPHA ( 1 ) = -3.917 BETA ( 5 ) = 8.333 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2642 -.2704  
40.000 -.2614 -.2791

ALPHA ( 2 ) = .066 BETA ( 1 ) = -7.886 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2671 -.2583  
40.000 -.2995 -.3286

ALPHA ( 2 ) = .075 BETA ( 2 ) = -3.862 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2569 -.2482  
40.000 -.2896 -.3172

ALPHA ( 2 ) = .076 BETA ( 3 ) = .175 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2517 -.2529  
40.000 -.2797 -.3104

ALPHA ( 2 ) = .073 BETA ( 4 ) = 4.250 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2552 -.2529  
40.000 -.2770 -.3057

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF66)

ALPHA ( 2 ) = .069 BETA ( 5 ) = 8.308 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2824 -.2841  
40.000 -.2625 -.2839

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -7.899 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2807 -.2897  
40.000 -.3265 -.3250

ALPHA ( 3 ) = 4.024 BETA ( 2 ) = -3.864 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2613 -.2642  
40.000 -.2931 -.3230

ALPHA ( 3 ) = 4.022 BETA ( 3 ) = .186 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2555 -.2591  
40.000 -.2703 -.2900

ALPHA ( 3 ) = 4.025 BETA ( 4 ) = 4.244 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2731 -.2755  
40.000 -.2693 -.2661

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF66)

ALPHA ( 3 ) = 4.03; BETA ( 5 ) = 8.294 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.6049

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2914 -.2987  
40.000 -.2509 -.2679

ALPHA ( 4 ) = 7.869 BETA ( 1 ) = -7.888 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2815 -.2907  
40.000 -.3013 -.3194

ALPHA ( 4 ) = 7.986 BETA ( 2 ) = -3.859 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0170 1.0460

PHI

.000 -.2624 -.2686  
40.000 -.2859 -.3065

ALPHA ( 4 ) = 7.991 BETA ( 3 ) = .178 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2409 -.2443  
40.000 -.2576 -.2825

ALPHA ( 4 ) = 7.992 BETA ( 4 ) = 4.237 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2724 -.2812  
40.000 -.2465 -.2759

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5697

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF66)

ALPHA ( 4 ) = 7.989 BETA ( 5 ) = 8.293 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2983 -.3058  
40.000 -.2430 -.2572

ALPHA ( 5 ) = 12.002 BETA ( 1 ) = -7.846 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2915 -.2787  
40.000 -.2532 -.3148

ALPHA ( 5 ) = 12.020 BETA ( 2 ) = -3.839 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2491 -.2602  
40.000 -.2755 -.2985

ALPHA ( 5 ) = 11.983 BETA ( 3 ) = .186 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2400 -.2494  
40.000 -.2553 -.2810

ALPHA ( 5 ) = 11.980 BETA ( 4 ) = 4.247 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2701 -.2777  
40.000 -.2411 -.2618ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5998

AMES 11-073(0A148) -140A/B/C/R OKB BODY FLAP UP (XEBF66)

ALPHA ( 5 ) = 11.973 BETA ( 5 ) = 8.307 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2942 -.2953  
40.000 -.2374 -.2645



DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5699

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEEF67) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.954 BETA ( 1 ) = -3.849 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3259 -3.3258  
 40.000 -3.3327 -3.3507

ALPHA ( 1 ) = -3.952 BETA ( 2 ) = .192 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3273 -3.3258  
 40.000 -3.3327 -3.3553

ALPHA ( 1 ) = -3.959 BETA ( 3 ) = 4.272 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3284 -3.3327  
 40.000 -3.3308 -3.3534

ALPHA ( 2 ) = .049 BETA ( 1 ) = -3.871 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.3267 -3.3314  
 40.000 -3.3352 -3.3534

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5700

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP UP (XEBF67)

ALPHA ( 2 ) = .052 BETA ( 2 ) = .177 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3256 -1.3291  
40.000 -1.3282 -1.3355

ALPHA ( 2 ) = .052 BETA ( 3 ) = 4.253 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3289 -1.3348  
40.000 -1.3255 -1.3469

ALPHA ( 1 ) = 4.019 BETA ( 1 ) = -3.877 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3246 -1.3327  
40.000 -1.3341 -1.3592

ALPHA ( 3 ) = 4.018 BETA ( 2 ) = .181 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3157 -1.3202  
40.000 -1.3250 -1.3466

ALPHA ( 3 ) = 4.022 BETA ( 3 ) = 4.243 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3268 -1.3317  
40.000 -1.3140 -1.3260

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5701

AMES 11-073(0A148) -1404/B/C/R ORB BODY FLAP UP

(XEBF57)

ALPHA ( 4 ) = 7.995 BETA ( 1 ) = -3.860 MACH = .90040 Q = 600.32 P = 1057.8 RNL = 3.5837

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3238 -1.3298  
401.000 -1.3319 -1.3480

ALPHA ( 4 ) = 7.993 BETA ( 2 ) = .182 MACH = .90040 Q = 600.32 P = 1057.6 RNL = 3.5837

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3220 -1.3173  
401.000 -1.3182 -1.3421

ALPHA ( 4 ) = 7.992 BETA ( 3 ) = 4.242 MACH = .90040 Q = 600.32 P = 1057.8 RNL = 3.5837

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3319 -1.3374  
401.000 -1.3147 -1.3219

ALPHA ( 5 ) = 11.953 BETA ( 1 ) = -3.856 MACH = .89987 Q = 599.87 P = 1058.3 RNL = 3.5762

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3209 -1.3278  
401.000 -1.3360 -1.3544

ALPHA ( 5 ) = 11.953 BETA ( 2 ) = .189 MACH = .89987 Q = 599.87 P = 1058.3 RNL = 3.5762

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3224 -1.3129  
401.000 -1.3216 -1.3392

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( APES 11-073-1 )

PAGE 5732

APES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEFST)

ALPHA (  $\beta$  ) = 11.953

BETA (  $\beta$  ) =

(  $\beta$  ) =

MACH =

Q =

P =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

PNL =

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L 9 1.0182 1.0460

PHI

1.000 1.3248 1.3322

40.000 1.3088 1.3334

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5703

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XE8F68) ( 05 AUG 75 )

## REFERENCE DATA

SPEC = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 YREF = 474.8000 IN. YMRP = .0000 IN. YO  
 ZREF = 936.0880 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.934 BETA ( 1 ) = -7.845 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2933 -.2888  
 40.000 -.3055 -.3431

ALPHA ( 1 ) = -3.918 BETA ( 2 ) = -3.844 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2921 -.2663  
 40.000 -.3157 -.3424

ALPHA ( 1 ) = -3.895 BETA ( 3 ) = .193 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2648 -.2718  
 40.000 -.3085 -.3378

ALPHA ( 1 ) = -3.903 BETA ( 4 ) = 4.270 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2932 -.2856  
 40.000 -.3097 -.3256

## PARAMETRIC DATA

RUDDER = .000 SPD8RK = 55.000  
 BDFLAP = 22.500 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .500

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5704

AMES 11-073(0A148) -140A/B/C/R 07B BODY FLAP UP

(XEBF68)

ALPHA ( 1 ) = -3.916 BETA ( 5 ) = 8.339 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2951 -.3008  
40.000 -.2852 -.3018

ALPHA ( 2 ) = .067 BETA ( 1 ) = -7.888 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3058 -.2933  
40.000 -.3094 -.3425

ALPHA ( 2 ) = .076 BETA ( 2 ) = -3.860 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2911 -.2848  
40.000 -.3032 -.3302

ALPHA ( 2 ) = .078 BETA ( 3 ) = .177 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2874 -.2822  
40.000 -.3026 -.3215

ALPHA ( 2 ) = .074 BETA ( 4 ) = 4.252 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2898 -.2836  
40.000 -.3094 -.3286

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP (XEBF68)

ALPHA ( 2 ) = .069 BETA ( 5 ) = 8.307 MACH = .59556 Q = 594.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3037 -.3066  
40.000 -.2999 -.3094

ALPHA ( 3 ) = 4.022 BETA ( 1 ) = -7.901 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8446

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3069 -.3095  
40.000 -.3163 -.3364

ALPHA ( 3 ) = 4.025 BETA ( 2 ) = -3.862 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8446

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2986 -.2991  
40.000 -.3052 -.3437

ALPHA ( 3 ) = 4.023 BETA ( 3 ) = .182 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8446

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2698 -.2886  
40.000 -.2936 -.3203

ALPHA ( 3 ) = 4.027 BETA ( 4 ) = 4.243 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8446

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3012 -.3005  
40.000 -.3035 -.3095

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5706

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

(XEBF68)

ALPHA ( 3 ) = 4.033 BETA ( 5 ) = 8.290 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8446

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.3126 -.3280  
40.000 -.2876 -.2924

ALPHA ( 4 ) = 7.982 BETA ( 1 ) = -7.890 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3069 -.3129  
40.000 -.3211 -.3456

ALPHA ( 4 ) = 7.993 BETA ( 2 ) = -3.860 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2917 -.2931  
40.000 -.3007 -.3351

ALPHA ( 4 ) = 7.991 BETA ( 3 ) = .185 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2825 -.2813  
40.000 -.2848 -.3009

ALPHA ( 4 ) = 7.992 BETA ( 4 ) = 4.234 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2985 -.3055  
40.000 -.2898 -.3020



DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5707

AMES 11-073(OA148) -14DA/B/C/R ORB BODY FLAP UP

(XEBF68)

ALPHA ( 4 ) = 7.990 BETA ( 5 ) = 8.288 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3169 -.3393  
40.000 -.2796 -.2897

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -7.852 MACH = .59656 Q = 594.57 P = 2386.7 RN/L = 4.8403

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3023 -.3075  
40.000 -.3183 -.3395

ALPHA ( 5 ) = 11.978 BETA ( 2 ) = -3.840 MACH = .59656 Q = 594.57 P = 2386.7 RN/L = 4.8403

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2939 -.2835  
40.000 -.3016 -.3247

ALPHA ( 5 ) = 11.981 BETA ( 3 ) = .186 MACH = .59656 Q = 594.57 P = 2386.7 RN/L = 4.8403

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2829 -.2820  
40.000 -.2884 -.3112

ALPHA ( 5 ) = 11.977 BETA ( 4 ) = 4.246 MACH = .59656 Q = 594.57 P = 2386.7 RN/L = 4.8403

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2964 -.3119  
40.000 -.2752 -.2896

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XE8F68)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP UP

ALPHA ( 5 ) = 11.969    BETA ( 5 ) = 8.308    MACH = .59656    Q = 594.57    P = 2386.7    RN/L = 4.8403

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB    1.0180    1.0450

PHI

      .000    -.3157    -.3322  
      40.000    -.2640    -.2843

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5709

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF59) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.851 MACH = .89987 Q = 599.88 P = 1058.3 RN/L = 3.6263

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB

1.0180

1.0460

PHI

.000

-.3275

-.3253

40.000

-.3367

-.3573

ALPHA ( 1 ) = -3.997

BETA ( 2 ) = .189

MACH = .89987

Q =

599.88

P =

1058.3

RN/L =

3.6263

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB

1.0180

1.0460

PHI

.000

-.3251

-.3322

40.000

-.3223

-.3453

ALPHA ( 1 ) = -3.991

BETA ( 3 ) = 4.272

MACH = .89987

Q =

599.88

P =

1058.3

RN/L =

3.6263

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB

1.0180

1.0460

PHI

.000

-.3382

-.3417

40.000

-.3155

-.3147

ALPHA ( 2 ) = .008

BETA ( 1 ) = -3.868

MACH = .90190

Q =

601.65

P =

1056.6

RN/L =

3.6047

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB

1.0180

1.0460

PHI

.000

-.3302

-.3295

40.000

-.3333

-.3638

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5710

ALPHA ( 2 ) = .010 BETA ( 2 ) = .177 MACH = .90190 Q = 601.65 P = 1056.6 RN/L = 3.6047  
 AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XE8F69)

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3186 -.3259  
40.000 -.3195 -.3404

ALPHA ( 2 ) = .007 BETA ( 3 ) = 4.253 MACH = .90190 Q = 601.65 P = 1056.6 RN/L = 3.6047

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3301 -.3473  
40.000 -.3163 -.3163

ALPHA ( 3 ) = 4.005 BETA ( 1 ) = -3.869 MACH = .90083 Q = 600.78 P = 1057.6 RN/L = 3.5915

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3378 -.3278  
40.000 -.3373 -.3205

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = .179 MACH = .90083 Q = 600.78 P = 1057.6 RN/L = 3.5915

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3298 -.3333  
40.000 -.3220 -.3469

ALPHA ( 3 ) = 4.005 BETA ( 3 ) = 4.240 MACH = .90083 Q = 600.78 P = 1057.6 RN/L = 3.5915

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3291 -.3416  
40.000 -.3052 -.3234

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP  
(XEBF69)

ALPHA ( 4 ) = 7.975 BETA ( 1 ) = -3.869 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -1.3314 -1.3437  
40.000 -1.3307 -1.3511

ALPHA ( 4 ) = 7.978 BETA ( 2 ) = .182 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3292 -1.3277  
40.000 -1.3237 -1.3249

ALPHA ( 4 ) = 7.979 BETA ( 3 ) = 4.241 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -1.3316 -1.3479  
40.000 -1.3046 -1.3207

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -3.853 MACH = .90010 Q = 600.36 P = 1058.5 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -1.3310 -1.3329  
40.000 -1.3329 -1.3530

ALPHA ( 5 ) = 11.955 BETA ( 2 ) = .189 MACH = .90010 Q = 600.36 P = 1058.5 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3190 -1.3213  
40.000 -1.3291 -1.3436

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF69)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 5 ) = 11.948 BETA ( 3 ) = 4.260 MACH = .90010 Q = 600.36 P = 1058.5 RN/L 7793

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3217 -.3484

40.000 -.3203 -.3309

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5713

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF70) ( 05 AUG 75 )

## REFERENCE DATA

SPEC = 2800.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 UREF = 404.0000 IN. YMRP = .0000 IN. YO  
 SREF = 925.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = 1.5500

ALPHA ( 1 ) = -3.949 BETA ( 1 ) = -7.852 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/Z = 1.0180 1.0460

PH1  
 .000 -1.3394 -1.3063  
 .00000 -1.3399 -1.3380

ALPHA ( 1 ) = -3.933 BETA ( 2 ) = -3.843 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/Z = 1.0180 1.0460

PH1  
 .000 -1.3322 -1.2904  
 .00000 -1.3215 -1.3420

ALPHA ( 1 ) = -3.929 BETA ( 3 ) = .189 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/Z = 1.0180 1.0460

PH1  
 .000 -1.3328 -1.2915  
 .00000 -1.3127 -1.3254

ALPHA ( 1 ) = -3.935 BETA ( 4 ) = 4.269 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/Z = 1.0180 1.0460

PH1  
 .000 -1.3361 -1.2922  
 .00000 -1.3149 -1.3335

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .500

ORIGINAL PAGE 18  
OF POOR QUALITY

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5714

AMES 11-073(0A148) -140A/3/C ORB BODY FLAP UP (XEBF70)

ALPHA ( 1 ) = -3.949 BETA ( 5 ) = 8.334 MACH = .59566 Q = 594.81 P = 2387.3 RN/L = 4.8517

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 -1.3009 -1.3115  
40.000 -1.3097 -1.3129

ALPHA ( 2 ) = .049 BETA ( 1 ) = -7.888 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 -1.3175 -1.3150  
40.000 -1.3214 -1.3433

ALPHA ( 2 ) = .055 BETA ( 2 ) = -3.864 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 -1.3027 -1.2916  
40.000 -1.3005 -1.3400

ALPHA ( 2 ) = .052 BETA ( 3 ) = .180 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 -1.3020 -1.2690  
40.000 -1.3023 -1.3290

ALPHA ( 2 ) = .055 BETA ( 4 ) = 4.251 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 -1.3045 -1.2995  
40.000 -1.3107 -1.3322



DATE 13 FEB 78

INSULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 57.5

AMES 11-073(0A148) -140A/B/C 038 BODY FLAP UP (XEBFTD)

ALPHA ( 2 ) = .061 BETA ( 5 ) = 8.305 MACH = .59528 Q = 593.97 P = 2385.4 RN/L = 4.8-52

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -1.3122 -1.3221

40.000 -1.3117 -1.3197

ALPHA ( 3 ) = 4.000 BETA ( 1 ) = -7.898 MACH = .59578 Q = 593.03 P = 2385.8 RN/L = 4.8-55

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -1.3203 -1.3257

40.000 -1.3276 -1.3415

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = -3.861 MACH = .59578 Q = 593.03 P = 2385.8 RN/L = 4.8-55

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -1.3131 -1.3215

40.000 -1.3067 -1.3308

ALPHA ( 3 ) = 4.000 BETA ( 3 ) = 1.182 MACH = .59578 Q = 593.03 P = 2385.8 RN/L = 4.8-56

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -1.3021 -1.2975

40.000 -1.2958 -1.3188

ALPHA ( 3 ) = 4.003 BETA ( 4 ) = 4.239 MACH = .59578 Q = 593.03 P = 2385.8 RN/L = 4.8-56

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -1.3028 -1.3063

40.000 -1.3040 -1.3241

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A142 ( AMES 11-073-1 )

PAGE 5715

AMES 11-073(0A142) -140A/B/C ORB BODY FLAP UP

(XEB57D)

ALPHA ( 3 ) = 4.009 BETA ( 5 ) = 8.292 MACH = .59578 Q = 593.03 P = 2386.9 RN/L = 4.8482

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

RH:

.000 -1.3194 -1.3234  
40.000 -1.2931 -1.3055

ALPHA ( 4 ) = 7.945 BETA ( 1 ) = -7.990 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

RH:

.000 -1.3512 -1.3276  
40.000 -1.3344 -1.3465

ALPHA ( 4 ) = 7.956 BETA ( 2 ) = -3.860 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

RH:

.000 -1.3026 -1.3263  
40.000 -1.3134 -1.3263

ALPHA ( 4 ) = 7.955 BETA ( 3 ) = .181 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

RH:

.000 -1.2961 -1.2970  
40.000 -1.2940 -1.2956

ALPHA ( 4 ) = 7.955 BETA ( 4 ) = 4.234 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

RH:

.000 -1.3124 -1.3207  
40.000 -1.2942 -1.3082

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5717

ALPHA ( 5 ) = 7.954 BETA ( 5 ) = 8.280 MACH = .59630 Q = 593.57 P = 2386.4 RN/L = 4.8482  
(XEBF70)

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3205 -1.3399  
40.000 -1.2900 -1.3056

ALPHA ( 5 ) = 11.925 BETA ( 1 ) = -7.848 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3153 -1.3255  
40.000 -1.3255 -1.3348

ALPHA ( 5 ) = 11.942 BETA ( 2 ) = -3.851 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3049 -1.3082  
40.000 -1.3127 -1.3272

ALPHA ( 5 ) = 11.947 BETA ( 3 ) = .182 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.3040 -1.2997  
40.000 -1.2905 -1.3125

ALPHA ( 5 ) = 11.942 BETA ( 4 ) = 4.245 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.2970 -1.3158  
40.000 -1.2751 -1.3251

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5718

AMES 11-073(0A148) -140A/B/C OR8 BODY FLAP UP (XE8F7D)

ALPHA ( 5 ) = 11.935 BETA ( 5 ) = 8.309 MACH = .52584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH1

.000 -.3222 -.3368  
40.000 -.2883 -.3110

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5719

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF71) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = 1.400

ALPHA ( 1 ) = -3.946 BETA ( 1 ) = -3.857 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9096

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3512 -.3382  
 40.000 -.3650 -.3745

ALPHA ( 1 ) = -3.940 BETA ( 2 ) = .190 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9096

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3421 -.3328  
 40.000 -.3594 -.3549

ALPHA ( 1 ) = -3.946 BETA ( 3 ) = 4.272 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9096

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3410 -.3394  
 40.000 -.3444 -.3391

ALPHA ( 1 ) = .016 BETA ( 1 ) = -3.873 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9088

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.3550 -.3429  
 40.000 -.3811 -.3990

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

(XEBF71)

ALPHA ( 2 ) = .022 BETA ( 2 ) = .180 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9088

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3451 -.3363  
40.000 -.3696 -.3711

ALPHA ( 2 ) = .018 BETA ( 3 ) = 4.248 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9088

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3565 -.3598  
40.000 -.3610 -.3603

ALPHA ( 3 ) = 3.951 BETA ( 1 ) = -3.877 MACH = 1.3961 Q = 600.56 P = 440.18 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3565 -.3421  
40.000 -.3827 -.3889

ALPHA ( 3 ) = 3.952 BETA ( 2 ) = .179 MACH = 1.3961 Q = 600.56 P = 440.18 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3499 -.3387  
40.000 -.3706 -.3770

ALPHA ( 3 ) = 3.956 BETA ( 3 ) = 4.242 MACH = 1.3961 Q = 600.56 P = 440.18 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2641 -.3662  
40.000 -.3574 -.3679

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XE8F71)

ALPHA ( 4 ) = 11.937 BETA ( 1 ) = -3.873 MACH = 1.3969 Q = 600.27 P = 439.47 RN/L = 2.9090

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3609 -.3488  
40.000 -.3862 -.3979

ALPHA ( 4 ) = 7.995 BETA ( 2 ) = .177 MACH = 1.3969 Q = 600.27 P = 439.47 RN/L = 2.9090

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3620 -.3513  
40.000 -.3841 -.3977

ALPHA ( 4 ) = 7.992 BETA ( 3 ) = 4.237 MACH = 1.3969 Q = 600.27 P = 439.47 RN/L = 2.9090

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3655 -.3641  
40.000 -.3765 -.3785

ALPHA ( 5 ) = 11.960 BETA ( 1 ) = -3.861 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3721 -.3690  
40.000 -.3754 -.3695

ALPHA ( 5 ) = 11.969 BETA ( 2 ) = .177 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3545 -.3485  
40.000 -.3721 -.3861

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORB BODY FLAP UP (XE8F71)

ALPHA ( 5 ) = 11.967 BETA ( 3 ) = 4.251 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9137

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3623 -.3497  
40.000 -.3909 -.3981

ALPHA ( 6 ) = 15.903 BETA ( 1 ) = -3.840 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3614 -.3536  
40.000 -.3798 -.4071

ALPHA ( 6 ) = 15.917 BETA ( 2 ) = .180 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3717 -.3593  
40.000 -.3945 -.4162

ALPHA ( 5 ) = 15.910 BETA ( 3 ) = 4.280 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3597 -.3542  
40.000 -.3919 -.4114



DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF72) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C CRB BODY FLAP UP

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 475.9000 IN. YMRP = .0000 IN. YO  
BREF = 935.0080 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -3.944 BETA ( 1 ) = -3.854 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0058

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -3.3635 -3.3752  
40.000 -4.100 -4.181

ALPHA ( 1 ) = -3.937 BETA ( 2 ) = .190 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0058

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -3.3706 -3.3589  
40.000 -3.3225 -3.3892

ALPHA ( 1 ) = -3.943 BETA ( 3 ) = 4.266 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0058

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -3.3844 -3.3882  
40.000 -3.3930 -3.3777

ALPHA ( 2 ) = .045 BETA ( 1 ) = -3.865 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -3.3909 -3.3842  
40.000 -4.211 -4.255

44  
P 44

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF72)

ALPHA ( 2 ) = .050 BETA ( 2 ) = .176 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3856 -.3795  
40.000 -.4102 -.4088

ALPHA ( 2 ) = .045 BETA ( 3 ) = 4.247 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3942 -.4028  
40.000 -.3935 -.3847

ALPHA ( 3 ) = 3.983 BETA ( 1 ) = -3.876 MACH = 1.2481 Q = 600.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3983 -.3876  
40.000 -.4229 -.4263

ALPHA ( 3 ) = 3.983 BETA ( 2 ) = .181 MACH = 1.2481 Q = 600.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3982 -.3997  
40.000 -.4239 -.4251

ALPHA ( 3 ) = 3.984 BETA ( 3 ) = 4.240 MACH = 1.2481 Q = 600.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4023 -.4071  
40.000 -.4033 -.3992

DATE 13 FEB 75 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.872 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127  
(XEBF72)

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.132 -4.005  
40.000 -4.347 -4.365

ALPHA ( 4 ) = 7.940 BETA ( 2 ) = .173 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.133 -4.075  
40.000 -4.365 -4.405

ALPHA ( 4 ) = 7.943 BETA ( 3 ) = 4.236 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.167 -4.157  
40.000 -4.438 -4.432

ALPHA ( 5 ) = 12.023 BETA ( 1 ) = -3.855 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.215 -4.113  
40.000 -4.453 -4.456

ALPHA ( 5 ) = 12.037 BETA ( 2 ) = .182 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -4.113 -4.034  
40.000 -4.283 -4.414

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5726

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP 1XE9F72)

ALPHA ( 5 ) = 12.032 BETA ( 3 ) = 4.249 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION 1 1800 FLAP UPPER

DEPENDENT VARIABLE CP

X/CB 1.0180 1.0460

PHI

.000 -4.118 -4.4094  
40.000 -4.352 -4.453

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5727

(XEBFT3) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

REFERENCE DATA

SEEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XC  
LEEF = 474.6000 IN. YMRP = .0000 IN. YO  
SEEF = 956.0000 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -3.958 BETA ( 1 ) = -3.850 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.4194 -1.4130  
40.000 -1.4273 -1.4397

ALPHA ( 1 ) = -3.953 BETA ( 2 ) = .190 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.3974 -1.3948  
40.000 -1.3872 -1.3886

ALPHA ( 1 ) = -3.950 BETA ( 3 ) = 4.266 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.4324 -1.4300  
40.000 -1.3957 -1.3952

ALPHA ( 2 ) = .047 BETA ( 1 ) = -3.859 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1830

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -1.4240 -1.4218  
40.000 -1.4309 -1.4433

PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
BOFLAP = 16.300 L-ELVN = -10.000  
R-ELVN = -10.000 MACH = 1.100

DATE 13 FEB 75

TABULATED PRESSURE DATA - DA148 ( AMES 11-073- )

PAGE 528

AMES 11-073(DA148) -140A/B/C ORB BODY FLAP UP IXEFT3:

ALPHA ( 2 ) = .052 BETA ( 2 ) = .177 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1830

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4060 -1.4036  
40.000 -1.4153 -1.4175

ALPHA ( 2 ) = 0.46 BETA ( 3 ) = 4.245 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1830

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4329 -1.4293  
40.000 -1.3891 -1.3934

ALPHA ( 3 ) = 4.012 BETA ( 1 ) = -3.872 MACH = 1.0998 Q = 599.99 P = 708.50 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4333 -1.4293  
40.000 -1.4407 -1.4495

ALPHA ( 3 ) = 4.014 BETA ( 2 ) = .182 MACH = 1.0998 Q = 599.99 P = 708.60 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4211 -1.4204  
40.000 -1.4402 -1.4413

ALPHA ( 3 ) = 4.035 BETA ( 3 ) = 4.238 MACH = 1.0998 Q = 599.99 P = 708.50 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4402 -1.4485  
40.000 -1.4013 -1.4149

DATE 13 FEB 75

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

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AMES 11-073(CA148) -140A/B/C ORB BODY FLAP UP (YES73)

ALPHA ( 4 ) = 0.976 BETA ( 1 ) = -3.868 MACH = 1.1000 Q = 599.94 P = 708.36 RN/L = 3.1794

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

PHI

.000 -1.4582 -1.4528  
40.000 -1.4586 -1.4757

ALPHA ( 4 ) = 7.984 BETA ( 2 ) = .174 MACH = 1.1000 Q = 599.94 P = 708.36 RN/L = 3.1794

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

PHI

.000 -1.4405 -1.4419  
40.000 -1.4576 -1.4610

ALPHA ( 4 ) = 7.984 BETA ( 3 ) = 4.233 MACH = 1.1000 Q = 599.94 P = 708.36 RN/L = 3.1794

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

PHI

.000 -1.4581 -1.4697  
40.000 -1.4586 -1.4693

ALPHA ( 5 ) = 12.067 BETA ( 1 ) = -3.848 MACH = 1.0997 Q = 599.64 P = 708.51 RN/L = 3.1785

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

PHI

.000 -1.4634 -1.4606  
40.000 -1.4813 -1.4932

ALPHA ( 5 ) = 12.077 BETA ( 2 ) = .180 MACH = 1.0997 Q = 599.64 P = 708.61 RN/L = 3.1785

SECTION 1 11800Y FLAP UPPER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

PHI

.000 -1.4471 -1.4456  
40.000 -1.4709 -1.4812

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A118 ( AMES 11-073-1 )

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(XIB573)

AMES 11-073(0A118) -143A/B/C CFB BODY FLAP UP

ALPHA = 12.075 BETA ( 3 ) = 4.245 MACH = 1.0997 Q = 599.84 P = 709.61 RNL = 3.1785

DEPENDENT VARIABLE CP

SECTION 11 BODY FLAP UPPER

X100 1.0180 1.0462

Q41 1.4368 1.4739

Q300 1.4692 1.4783



DATE 13 FEB 75

TABULATED PRESSURE DATA - (XEBF74) ( 05 AUG 75 )

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OR8 BODY FLAP UP

AMCS 11-07310A1

# REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 REF = 474.8000 IN. YMRP = 1.0000 IN. YO  
 REF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.998 BETA ( 1 ) = -3.854 MACH = .9080

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2878 -2920  
 40.000 -3115 -3418

ALPHA ( 1 ) = -3.915 BETA ( 2 ) = .189 MACH = .9080

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2971 -3092  
 40.000 -3012 -3161

ALPHA ( 1 ) = -3.951 BETA ( 3 ) = 4.266 MACH = .9080

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -3225 -3291  
 40.000 -2761 -2910

ALPHA ( 2 ) = .055 BETA ( 1 ) = -3.868 MACH = .90127

## SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2915 -2860  
 40.000 -3069 -3259

# PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .900  
 P = 1057.3 RN/L = 3.5738

P = 600.60 Q = 1057.3 RN/L = 3.5738

P = 600.60 Q = 1057.3 RN/L = 3.5738

P = 600.67 Q = 1056.4 RN/L = 3.5726

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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ALPHA ( 2 ) = .084 BETA ( 2 ) = .180 MACH = .90127 Q = 600.67 P = 1056.4 RN/L = 3.5726  
(XE8F74) IE

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2915 -.3040  
40.000 -.2971 -.3102

ALPHA ( 2 ) = .055 BETA ( 3 ) = 4.248 MACH = .90127 Q = 600.67 P = 1056.4 RN/L = 3.5726

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3071 -.3171  
40.000 -.2818 -.2941

ALPHA ( 3 ) = 4.001 BETA ( 1 ) = -3.875 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2949 -.2973  
40.000 -.3025 -.3234

ALPHA ( 3 ) = 4.079 BETA ( 2 ) = .183 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2927 -.2979  
40.000 -.2974 -.3104

ALPHA ( 3 ) = 4.001 BETA ( 3 ) = 4.242 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3065 -.3210  
40.000 -.2755 -.2907

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF74)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.872 MACH = .90130 Q = 600.85 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.DCO -.2886 -.2971  
40.000 -.2959 -.3218

ALPHA ( 4 ) = 8.028 BETA ( 2 ) = .177 MACH = .90130 Q = 600.85 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.DCO -.2795 -.2947  
40.000 -.2800 -.2959

ALPHA ( 4 ) = 8.031 BETA ( 3 ) = 4.235 MACH = .90130 Q = 600.85 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.DCO -.2988 -.3097  
40.000 -.2737 -.2751

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.859 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.DCO -.2705 -.2845  
40.000 -.2971 -.3198

ALPHA ( 5 ) = 12.020 BETA ( 2 ) = .183 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.DCO -.2686 -.2757  
40.000 -.2778 -.2953

DATE 13 FEB 76

LABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF74)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 5 ) = 12.054 BETA ( 3 ) = 4.256 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2852 -.3044  
40.000 -.2601 -.2852

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF75) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .600

P = 594.32 P = 2386.4 RN/L = 4.8576

REFERENCE DATA

REF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -7.854 MACH = .59648 Q = .594.32

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2697 -.2556  
 40.000 -.3030 -.3235

ALPHA ( 1 ) = -3.939 BETA ( 2 ) = -3.848 MACH = .59648 Q = .594.32 P = 2386.4 RN/L = 4.8576

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2697 -.2556  
 40.000 -.3030 -.3235

ALPHA ( 1 ) = -3.938 BETA ( 3 ) = .187 MACH = .59648 Q = .594.32 P = 2386.4 RN/L = 4.8576

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2657 -.2546  
 40.000 -.2816 -.3099

ALPHA ( 1 ) = -3.926 BETA ( 4 ) = 4.266 MACH = .59648 Q = .594.32 P = 2386.4 RN/L = 4.8576

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.2806 -.2860  
 40.000 -.2784 -.2942

DATE 13 FEB 76

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## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF75)

ALPHA ( 1 ) = -3.941 BETA ( 5 ) = 8.332 MACH = .53648 Q = 594.32 P = 2386.4 RN/L = 4.8576

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2873 -.3031  
40.000 -.2675 -.2670

ALPHA ( 2 ) = .043 BETA ( 1 ) = -7.860 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2697 -.2954  
40.000 -.3105 -.3332

ALPHA ( 2 ) = .091 BETA ( 2 ) = -3.863 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2765 -.2850  
40.000 -.2956 -.3169

ALPHA ( 2 ) = .092 BETA ( 3 ) = .181 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2765 -.2725  
40.000 -.2885 -.3050

ALPHA ( 2 ) = .077 BETA ( 4 ) = 4.247 MACH = .53624 Q = 593.85 P = 2386.3 RN/L = 4.8579

## SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2816 -.2963  
40.000 -.2875 -.2919

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A14B ( AMES 11-073-1 )

AMES 11-073(0A14B) -140A/B/C ORB BODY FLAP UP (XE8F75)  
 ALPHA ( 2 ) = .073 BETA ( 5 ) = 8.305 MACH = .59624 Q = 593.65 P = 2386.3 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2926 -1.3023  
 40.000 -1.2627 -1.2813

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -7.904 MACH = .593 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2916 -1.3008  
 40.000 -1.3077 -1.3333

ALPHA ( 3 ) = 4.026 BETA ( 2 ) = -3.864 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2919 -1.2790  
 40.000 -1.2974 -1.3245

ALPHA ( 3 ) = 4.153 BETA ( 3 ) = .177 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2854 -1.2694  
 40.000 -1.2791 -1.2939

ALPHA ( 3 ) = 4.012 BETA ( 4 ) = 4.240 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.2834 -1.3073  
 40.000 -1.2790 -1.2935

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF75)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

RN/L = 4.8659

P

= 594.21

Q

= .59640

MACH

= 8.288

BETA ( 5 )

= 4.017

ALPHA ( 3 )

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.3035 -1.3065

40.000 -1.2504 -1.2804

ALPHA ( 4 )

= 7.959

BETA ( 1 )

= -7.893

MACH

= .59626

Q

= 593.97

P

= 2386.7

RN/L = 4.8657

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2930 -1.3020

40.000 -1.3128 -1.3397

ALPHA ( 4 )

= 7.971

BETA ( 2 )

= -3.863

MACH

= .59626

Q

= 593.97

P

= 2386.7

RN/L = 4.8657

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2774 -1.2774

40.000 -1.2930 -1.3218

ALPHA ( 4 )

= 8.077

BETA ( 3 )

= .178

MACH

= .59626

Q

= 593.97

P

= 2386.7

RN/L = 4.8657

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2697 -1.2733

40.000 -1.2727 -1.2935

ALPHA ( 4 )

= 8.079

BETA ( 4 )

= 4.235

MACH

= .59626

Q

= 593.97

P

= 2386.7

RN/L = 4.8657

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -1.2916 -1.3041

40.000 -1.2627 -1.2929



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF75)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 4 ) = 8.076 BETA ( 5 ) = 8.290 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8657

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3103 -.3183  
40.000 -.2675 -.2651

ALPHA ( 5 ) = 11.984 BETA ( 1 ) = -7.850 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2957 -.2994  
40.000 -.3083 -.3290

ALPHA ( 5 ) = 12.003 BETA ( 2 ) = -3.840 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2643 -.2712  
40.000 -.2837 -.3125

ALPHA ( 5 ) = 12.008 BETA ( 3 ) = .180 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2618 -.2685  
40.000 -.2559 -.2657

ALPHA ( 5 ) = 12.057 BETA ( 4 ) = 4.244 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2877 -.3075  
40.000 -.2504 -.2671

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF75)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 5 ) = 12.114 BETA ( 5 ) = 8.307 MACH = .59636 Q = 594.09 P = 2396.3 RN/L = 4.867

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3109 -.3237

40.000 -.2623 -.2623

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

DATE 13 FEB 76

(XEBK76) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8240 IN. YMRP = .0000 IN. YO  
BREF = 936.0930 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = .000  
BDFLAP = -11.700 L-ELVN = 10.000  
R-ELVN = -10.000 MACH = 1.400

ALPHA ( 1 ) = -4.004 BETA ( 1 ) = -3.853 MACH = 1.3930 Q = 598.57 P = 440.65 RN/L = 2.9057

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3534 -3544  
40.000 -3534 -3575

ALPHA ( 1 ) = -4.001 BETA ( 2 ) = .191 MACH = 1.3930 Q = 598.57 P = 440.65 RN/L = 2.9057

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3511 -3580  
40.000 -3461 -3564

ALPHA ( 1 ) = -3.983 BETA ( 3 ) = 4.275 MACH = 1.3930 Q = 598.57 P = 440.65 RN/L = 2.9057

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3525 -3555  
40.000 -3425 -3532

ALPHA ( 2 ) = .029 BETA ( 1 ) = -3.866 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
.000 -3359 -3520  
40.000 -3542 -3546

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEB76)

ALPHA ( 2 ) = .033 BETA ( 2 ) = .181 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

SECTION 1 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3418 -.3550  
40.000 -.3533 -.3595

ALPHA ( 2 ) = .029 BETA ( 3 ) = 4.255 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

SECTION 1 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3516 -.3593  
40.000 -.3530 -.3595

ALPHA ( 3 ) = 3.951 BETA ( 1 ) = -3.871 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION 1 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3325 -.3507  
40.000 -.3533 -.3526

ALPHA ( 3 ) = 3.952 BETA ( 2 ) = .187 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION 1 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3387 -.3452  
40.000 -.3426 -.3443

ALPHA ( 3 ) = 3.953 BETA ( 3 ) = 4.246 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION 1 11BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3458 -.3533  
40.000 -.3461 -.3464

DATE 13 FEB 78 TABULATED PRESSURE DATA - 0A14B ( AMES 11-073-1 )

AMES 11-073(0A14B) -140A/B/C ORB BODY FLAP UP (XEBF75)

ALPHA ( 4 ) = 7.697 BETA ( 1 ) = -3.866 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -3.357 -3.485  
40.000 -3.455 -3.513

ALPHA ( 4 ) = 7.694 BETA ( 2 ) = .139 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -3.303 -3.336  
40.000 -3.368 -3.435

ALPHA ( 4 ) = 7.931 BETA ( 3 ) = 4.247 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -3.482 -3.553  
40.000 -3.575 -3.637

ALPHA ( 5 ) = 11.871 BETA ( 1 ) = -3.849 MACH = 1.3930 Q = 600.10 P = 441.82 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -3.515 -3.542  
40.000 -3.455 -3.537

ALPHA ( 5 ) = 11.913 BETA ( 2 ) = .191 MACH = 1.3930 Q = 600.10 P = 441.82 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -3.470 -3.566  
40.000 -3.499 -3.538

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF76)

ALPHA ( 5 ) = 11.908 BETA ( 3 ) = 4.262 MACH = 1.3930 Q = 600.10 P = 441.82 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3466 -0.3592  
40.000 -0.3552 -0.3686

ALPHA ( 6 ) = 15.905 BETA ( 1 ) = -3.830 MACH = 1.3921 Q = 600.28 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3740 -0.3876  
40.000 -0.3592 -0.3544

ALPHA ( 5 ) = 15.917 BETA ( 2 ) = .190 MACH = 1.3921 Q = 600.28 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3682 -0.3783  
40.000 -0.3843 -0.3945

ALPHA ( 6 ) = 15.907 BETA ( 3 ) = 4.290 MACH = 1.3921 Q = 600.20 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3596 -0.3753  
40.000 -0.3931 -0.3962

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 1076.6800 IN. XO PARAMETRIC DATA  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO RUDDER = -10.000 SPOBRK = .000  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO BOFLAP = -11.700 L-ELVN = 0.000  
 SCALE = .0300 R-ELVN = -10.000 MACH = 1.250

ALPHA ( 1 ) = -4.016 BETA ( 1 ) = -3.849 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0204

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -3.754 -3.925

40.000 -3.909 -3.936

ALPHA ( 1 ) = -4.011 BETA ( 2 ) = .186 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0204

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -3.728 -3.894

40.000 -3.886 -3.918

ALPHA ( 1 ) = -4.020 BETA ( 3 ) = 4.275 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0204

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -3.823 -3.957

40.000 -3.943 -3.974

ALPHA ( 2 ) = .012 BETA ( 1 ) = -3.863 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0183

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -3.687 -3.835

40.000 -3.804 -3.819

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

(XEB777)

ALPHA ( 2 ) = .014 BETA ( 2 ) = .176 MACH = 1.2451 C = 599.58 P = 552.51 RN/L = 3.0183

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 -.3675 -.3850  
40.000 -.3795 -.3955

ALPHA ( 2 ) = .026 BETA ( 3 ) = 4.255 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0183

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3806 -.3985  
40.000 -.3794 -.3821

ALPHA ( 3 ) = 3.987 BETA ( 1 ) = -3.868 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3658 -.3780  
40.000 -.3751 -.3749

ALPHA ( 3 ) = 3.988 BETA ( 2 ) = .182 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3585 -.3703  
40.000 -.3557 -.3681

ALPHA ( 3 ) = 3.988 BETA ( 3 ) = 4.246 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3804 -.3976  
40.000 -.3823 -.3956



TABULATED PRESSURE DATA - 0A148 : AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C ORB BODY FLAP UP (XE8F77)

ALPHA ( 4 ) = 7.974 BETA ( 1 ) = -3.859 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3844 -.3818  
40.000 -.3762 -.3818

ALPHA ( 4 ) = 7.979 BETA ( 2 ) = .184 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3559 -.3731  
40.000 -.3717 -.3775

ALPHA ( 4 ) = 7.978 BETA ( 3 ) = 4.242 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3852 -.3952  
40.000 -.3892 -.3955

ALPHA ( 5 ) = 11.961 BETA ( 1 ) = -3.847 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3912 -.4022  
40.000 -.3919 -.4029

ALPHA ( 5 ) = 11.970 BETA ( 2 ) = .192 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3879 -.4035  
40.000 -.3826 -.4051

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-373-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF77)

ALPHA ( 5 ) = 11.962 BETA ( 3 ) = 4.260 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3786 -.3915  
40.000 -.4037 -.4061

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

PARAMETRIC DATA

RUDDER = -10.000 SPDRK = .000  
 BDFLAP = -11.700 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = 1.100

REFERENCE DATA

SREF = 3690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.062 BETA ( 1 ) = -3.838 MACH = 1.0993 Q = 599.81 P = 709.06 RN/L = 3.1886

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3936 -3982  
 40.000 -3936 -4001

ALPHA ( 2 ) = -4.058 BETA ( 2 ) = .195 MACH = 1.0993 Q = 599.81 P = 709.06 RN/L = 3.1886

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3953 -4034  
 40.000 -3931 -3991

ALPHA ( 3 ) = -4.055 BETA ( 3 ) = 4.277 MACH = 1.0993 Q = 599.81 P = 709.06 RN/L = 3.1886

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4173 -4271  
 40.000 -4165 -4256

ALPHA ( 2 ) = .040 BETA ( 1 ) = -3.863 MACH = 1.0990 Q = 599.71 P = 709.30 RN/L = 3.1996

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3778 -3837  
 40.000 -3754 -3909

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORB BODY FLAP UP (XE8F78)

ALPHA ( 2 ) = .041 BETA ( 2 ) = .186 MACH = 1.0990 Q = 599.71 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3790 -.3893  
40.000 -.3780 -.3845

ALPHA ( 2 ) = .036 BETA ( 3 ) = 4.252 MACH = 1.0990 Q = 599.71 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3979 -.4056  
40.000 -.3948 -.4034

ALPHA ( 3 ) = 4.005 BETA ( 1 ) = -3.864 MACH = 1.0989 Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3339 -.3824  
40.000 -.3929 -.3846

ALPHA ( 3 ) = 4.004 BETA ( 2 ) = .194 MACH = 1.0969 Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3776 -.3945  
40.000 -.3759 -.3800

ALPHA ( 3 ) = 4.004 BETA ( 3 ) = 4.242 MACH = 1.0989 Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3954 -.4028  
40.000 -.3949 -.3966

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF78)

ALPHA ( 4 ) = 8.022 BETA ( 1 ) = -3.857 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3882 -0.3923  
40.000 -0.3834 -0.3911

ALPHA ( 4 ) = 8.002 BETA ( 2 ) = .186 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.3903 -0.3989  
40.000 -0.3884 -0.3922

ALPHA ( 4 ) = 7.997 BETA ( 3 ) = 4.238 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.4025 -0.4108  
40.000 -0.4055 -0.4088

ALPHA ( 5 ) = 11.963 BETA ( 1 ) = -3.838 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1917

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.4070 -0.4190  
40.000 -0.4031 -0.4118

ALPHA ( 5 ) = 11.967 BETA ( 2 ) = .194 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1917

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.4133 -0.4263  
40.000 -0.4203 -0.4219

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XE8F78)

ALPHA ( 5 ) = 11.958 BETA ( 3 ) = 4.256 MACH = 1.0980 Q = 599.15 P = 710.0: RN/L = 3.1917

SECTION 1: BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0480

PHI

-4150 -4335

40.000 -4174 -4283

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEB79) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.5800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.051 BETA ( 1 ) = -3.840 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2474 -.2842  
40.000 -.2495 -.2519

ALPHA ( 1 ) = -4.053 BETA ( 2 ) = .202 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2542 -.3070  
40.000 -.2613 -.2651

ALPHA ( 1 ) = -4.070 BETA ( 3 ) = 4.283 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2684 -.3150  
40.000 -.2779 -.2820

ALPHA ( 2 ) = .045 BETA ( 1 ) = -3.859 MACH = .89957 Q = 599.75 P = 1058.8 RN/L = 3.5771

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2455 -.2787  
40.000 -.2262 -.2467

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
80FLAP = -11.700 L-ELVN = 10.000  
R-ELVN = -10.000 MACH = .900

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEB79)

ALPHA ( 2 ) = .042 BETA ( 2 ) = .192 MACH = .89957 Q = 599.75 P = 1058.8 RN/L = 3.5771

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2504 -.2563  
40.000 -.2418 -.2561

ALPHA ( 2 ) = .032 BETA ( 3 ) = 4.260 MACH = .89957 Q = 599.75 P = 1058.8 RN/L = 3.5771

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2933 -.2983  
40.000 -.2683 -.2805

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -3.861 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2312 -.2387  
40.000 -.2193 -.2378

ALPHA ( 3 ) = 4.017 BETA ( 2 ) = .197 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2375 -.2626  
40.000 -.2305 -.2448

ALPHA ( 3 ) = 4.017 BETA ( 3 ) = 4.251 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION 1 BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2923 -.2830  
40.000 -.2649 -.2704



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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

(XEB79)

ALPHA ( 4 ) = 7.937 BETA ( 1 ) = -3.857 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L3 1.0180 1.0460

PHI

.000 -.2334 -.2607  
40.000 -.2175 -.2360

ALPHA ( 4 ) = 7.937 BETA ( 2 ) = .192 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L3 1.0180 1.0460

PHI

.000 -.2401 -.2838  
40.000 -.2359 -.2445

ALPHA ( 4 ) = 7.926 BETA ( 3 ) = 4.250 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L3 1.0180 1.0460

PHI

.000 -.2768 -.2944  
40.000 -.2525 -.2635

ALPHA ( 5 ) = 11.969 BETA ( 1 ) = -3.877 MACH = .89890 Q = 599.14 P = 1059.2 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L3 1.0180 1.0460

PHI

.000 -.2450 -.2808  
40.000 -.2472 -.2646

ALPHA ( 5 ) = 11.975 BETA ( 2 ) = .196 MACH = .89890 Q = 599.14 P = 1059.2 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/L3 1.0180 1.0460

PHI

.000 -.2490 -.2783  
40.000 -.2504 -.2683

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(XEB79)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA : 51 = 11.956 BETA ( 3 ) = 4.265 MACH = .89890 Q = 529.14 P = 1059.2 RVL = 3.5759

SECTION 4 11 BODY FLAP UPPER

DEPENDENT VARIABLE CP

XALB 1.0193 1.0460

PHI

.000 -.2992 -.3145  
40.000 -.2716 -.2765

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(XE9780) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

REFERENCE DATA

SREF = 2680.0000 SQ.FT. XMRP = 1076.5800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.078 BETA ( 1 ) = -7.858 MACH = .59728 Q = 595.86 P = 2385.0 RN/L = 4.8298

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2345 -2896  
 40.000 -2521 -2576

ALPHA ( 1 ) = -4.062 BETA ( 2 ) = -3.836 MACH = .59728 Q = 595.86 P = 2385.0 RN/L = 4.8298

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2345 -2896  
 40.000 -2521 -2576

ALPHA ( 1 ) = -4.061 BETA ( 3 ) = .183 MACH = .59728 Q = 595.86 P = 2385.0 RN/L = 4.8298

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2833 -2951  
 40.000 -2640 -2778

ALPHA ( 1 ) = -3.933 BETA ( 4 ) = 4.258 MACH = .59728 Q = 595.86 P = 2385.0 RN/L = 4.8298

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI  
 .000 -2893 -3106  
 40.000 -2890 -2893

PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = .000  
 BDFLAP = -11.000 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = .500

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBF80)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 1 ) = -3.995 BETA ( 5 ) = 8.327 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8298

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2874 -.3163  
40.000 -.2968 -.3028

ALPHA ( 2 ) = -.053 BETA ( 1 ) = -7.896 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2409 -.2677  
40.000 -.2437 -.2621

ALPHA ( 2 ) = -.008 BETA ( 2 ) = -3.854 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2373 -.2801  
40.000 -.2453 -.2853

ALPHA ( 2 ) = .029 BETA ( 3 ) = .176 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2496 -.2952  
40.000 -.2536 -.2706

ALPHA ( 2 ) = .052 BETA ( 4 ) = 4.239 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2800 -.3089  
40.000 -.2785 -.2762

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C OR8 BODY FLAP UP

(XEBF80)

ALPHA ( 2 ) = .006 BETA ( 5 ) = 8.284 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -3246 -3041  
40.000 -2862 -2873

ALPHA ( 3 ) = 3.903 BETA ( 1 ) = -7.902 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2233 -2619  
40.000 -2361 -2550

ALPHA ( 3 ) = 3.907 BETA ( 2 ) = -3.866 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2278 -2725  
40.000 -2412 -2544

ALPHA ( 3 ) = 3.984 BETA ( 3 ) = .180 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2287 -2912  
40.000 -2564 -2576

ALPHA ( 3 ) = 3.988 BETA ( 4 ) = 4.226 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -2634 -3027  
40.000 -2650 -2766

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF80)

ALPHA ( 3 ) = 4.029 BETA ( 5 ) = 8.276 MACH = .59628 Q = 593.85 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2462 -.3056

40.000 -.2749 -.2725

ALPHA ( 4 ) = 7.903 BETA ( 1 ) = -7.896 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2210 -.2559

40.000 -.2278 -.2526

ALPHA ( 4 ) = 7.912 BETA ( 2 ) = -3.851 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2256 -.2636

40.000 -.2358 -.2447

ALPHA ( 4 ) = 8.059 BETA ( 3 ) = .184 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2557 -.2871

40.000 -.2418 -.2524

ALPHA ( 4 ) = 8.016 BETA ( 4 ) = 4.233 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP UPPER

X/LB 1.0180 1.0460

PHI

.000 -.2394 -.3004

40.000 -.2615 -.2712

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF80)

ALPHA ( 4 ) = 8.043 BETA ( 5 ) = 8.283 MACH = .59626 Q = 594.19 P = 2385.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2942 -.3000  
40.000 -.2789 -.2789

ALPHA ( 5 ) = 11.974 BETA ( 1 ) = -7.860 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.8199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2260 -.2615  
40.000 -.2290 -.2459

ALPHA ( 5 ) = 11.993 BETA ( 2 ) = -3.842 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.8199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2231 -.2640  
40.000 -.2347 -.2475

ALPHA ( 5 ) = 12.035 BETA ( 3 ) = .179 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.8199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2303 -.2760  
40.000 -.2397 -.2548

ALPHA ( 5 ) = 12.027 BETA ( 4 ) = 4.242 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.8199

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2374 -.2810  
40.000 -.2480 -.2636

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

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(XE8F80)

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 5 ) = 12.061 BETA ( 5 ) = 8.297 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.8199

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2760 -.2833  
40.000 -.2774 -.2897



REFERENCE DATA

SECF = 2690.0000 SQ.FT.    XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN.    YMRP = .0000 IN. YO  
 BREF = 935.0630 IN.    ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.955    BETA ( 1 ) = .176    MACH = 1.3929    Q = 599.69    P = 441.59    RN/L = 2.9281

SECTION ( 1 ) BODY FLAP UPPER    DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
 .000    -.3588    -.3624  
 40.000    -.3634    -.3749

ALPHA ( 2 ) = .029    BETA ( 1 ) = .177    MACH = 1.3894    Q = 599.62    P = 443.71    RN/L = 2.9315

SECTION ( 1 ) BODY FLAP UPPER    DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
 .000    -.3536    -.3584  
 40.000    -.3604    -.3693

ALPHA ( 3 ) = 3.945    BETA ( 1 ) = -3.872    MACH = 1.3917    Q = 599.67    P = 442.30    RN/L = 2.9226

SECTION ( 1 ) BODY FLAP UPPER    DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
 .000    -.3563    -.3607  
 40.000    -.3558    -.3599

ALPHA ( 3 ) = 3.983    BETA ( 2 ) = .185    MACH = 1.3917    Q = 599.67    P = 442.30    RN/L = 2.9226

SECTION ( 1 ) BODY FLAP UPPER    DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
 .000    -.3480    -.3543  
 40.000    -.3521    -.3572

PARAMETRIC DATA

RUDDER = 10.000    SPDBRK = .000  
 80FLAP = -11.700    L-ELVN = -10.000  
 R-ELVN = 10.000    MACH = 1.400

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF81)

ALPHA ( 3 ) = 3.932 BETA ( 3 ) = 4.246 MACH = 1.3917 Q = 599.67 P = 442.30 RN/L = 2.9226

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3458 -.3557  
40.000 -.3537 -.3600

ALPHA ( 4 ) = 7.903 BETA ( 1 ) = .179 MACH = 1.3906 Q = 599.65 P = 443.00 RN/L = 2.9169

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3420 -.3459  
40.000 -.3510 -.3546

ALPHA ( 5 ) = 11.906 BETA ( 1 ) = -3.868 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9079

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3526 -.3759  
40.000 -.3636 -.3887

ALPHA ( 5 ) = 11.888 BETA ( 2 ) = .169 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9079

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3434 -.3526  
40.000 -.3669 -.3763

ALPHA ( 5 ) = 11.887 BETA ( 3 ) = 4.249 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9079

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3724 -.3811  
40.000 -.3748 -.3743

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

(XEBF81)

ALPHA (  $\alpha$  ) = 15.870 BETA (  $\beta$  ) = .160 MACH = 1.3887 Q = 599.91 P = 444.41 RN/L = 2.9065

SECTION 1 BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3634 -.3785  
40.000 -.3859 -.3922

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5766

AMES 11-073(0A148) -J4DA/B/C ORB BODY FLAP UP

(XEBF82) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.001 BETA ( 1 ) = .172 MACH = 1.2465 Q = 600.03 P = 551.58 RN/L = 3.0277

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3841 -.3861  
 40.000 -.3846 -.3887

ALPHA ( 2 ) = .004 BETA ( 1 ) = .171 MACH = 1.2457 Q = 599.87 P = 552.28 RN/L = 3.0295

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3834 -.3851  
 40.000 -.3870 -.3853

ALPHA ( 3 ) = 3.910 BETA ( 1 ) = -3.880 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3906 -.3920  
 40.000 -.3888 -.3946

ALPHA ( 3 ) = 3.950 BETA ( 2 ) = .192 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3782 -.3825  
 40.000 -.3832 -.3864

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
 ROFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = 1.250

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF82)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

ALPHA ( 3 ) = 3.915 BETA ( 3 ) = 4.246 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3798 -.3837  
40.000 -.3830 -.3890

ALPHA ( 4 ) = 7.875 BETA ( 1 ) = .170 MACH = 1.2457 Q = 599.87 P = 552.28 RN/L = 3.0295

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3739 -.3765  
40.000 -.3773 -.3768

ALPHA ( 5 ) = 11.893 BETA ( 1 ) = -3.862 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3997 -.4055  
40.000 -.4043 -.4268

ALPHA ( 5 ) = 11.948 BETA ( 2 ) = .178 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3773 -.3901  
40.000 -.4032 -.4175

ALPHA ( 5 ) = 11.969 BETA ( 3 ) = 4.251 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP UPPER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4025 -.4080  
40.000 -.4054 -.4076

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBF83) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP

REFERENCE DATA

SREF = 2690.0000 50.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.0000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = 1.100

ALPHA ( 1 ) = -3.943 BETA ( 1 ) = .171 MACH = 1.0932 Q = 599.30 P = 708.59 RN/L = 3.1942

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000  
 40.000  
 -3921 -3943  
 -3909 -3989

ALPHA ( 2 ) = .065 BETA ( 1 ) = .171 MACH = 1.0580 Q = 599.15 P = 710.01 RN/L = 3.1985

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000  
 40.000  
 -3921 -3943  
 -3909 -3989

ALPHA ( 3 ) = 3.853 BETA ( 1 ) = -3.876 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000  
 40.000  
 -4001 -4078  
 -4047 -4102

ALPHA ( 3 ) = 3.808 BETA ( 2 ) = .189 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION 1: BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000  
 40.000  
 -3820 -3849  
 -3825 -3883

DATE 13 FEB 75

CALCULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5759

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP UP (XE8FB31)

ALPHA ( 3 ) = 3.913 BETA ( 3 ) = 4.243 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3869 -.3874  
40.000 -.3877 -.3913

ALPHA ( 4 ) = 8.023 BETA ( 1 ) = .173 MACH = 1.0972 Q = 598.87 P = 710.71 RN/L = 3.1996

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.3941 -.3944  
40.000 -.3905 -.4007

ALPHA ( 5 ) = 11.986 BETA ( 1 ) = -3.856 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4228 -.4416  
40.000 -.4457 -.4469

ALPHA ( 5 ) = 11.954 BETA ( 2 ) = .179 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4163 -.4237  
40.000 -.4288 -.4360

ALPHA ( 5 ) = 11.953 BETA ( 3 ) = 4.251 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP UPPER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -.4421 -.4450  
40.000 -.4435 -.4492

DATE 13 FEB 76

TABULATED PRESSURE DATA - Q0148 ( AMES 11-073-1 )

PAGE 5770

AMES 11-07310A1481 -140A/B/C ORB BODY FLAP UP

IXE8F84) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2693.0100 50. FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.9000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0600 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.965 BETA ( 1 ) = .165 MACH = .89930 Q = 598.63 P = 1059.2 RN/L = 3.5885

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2789 -.2953  
 40.000 -.2701 -.2260

ALPHA ( 2 ) = .057 BETA ( 1 ) = .165 MACH = .89770 Q = 598.28 P = 1060.7 RN/L = 3.5863

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2657 -.2810  
 40.000 -.2589 -.2767

ALPHA ( 3 ) = 3.889 BETA ( 1 ) = -3.885 MACH = .89803 Q = 598.38 P = 1060.0 RN/L = 3.5814

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2809 -.2937  
 40.000 -.2655 -.2723

ALPHA ( 3 ) = 4.092 BETA ( 2 ) = .164 MACH = .89803 Q = 598.38 P = 1060.0 RN/L = 3.5814

## SECTION ( 1 ) BODY FLAP UPPER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2945 -.2902  
 40.000 -.2507 -.2742

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = .920



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (X58F84)

ALPHA ( 3 ) = 3.995 BETA ( 3 ) = 4.248 MACH = .89803 Q = 598.38 P = 1050.0 RN/L = 3.5814

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.2455 -1.2628  
40.000 -1.2431 -1.2457

ALPHA ( 4 ) = 8.003 BETA ( 1 ) = .163 MACH = .89820 Q = 598.16 P = 1059.3 RN/L = 3.5782

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.2432 -1.2703  
40.000 -1.2420 -1.2639

ALPHA ( 5 ) = 11.989 BETA ( 1 ) = .169 MACH = .89670 Q = 597.36 P = 1051.4 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.2518 -1.2804  
40.000 -1.2516 -1.2900

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF85) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.6100 IN. YMRP = .0000 IN. YO  
BREF = 935.0600 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -3.903 BETA ( 1 ) = .164 MACH = .59620 Q = 593.85 P = 2386.4 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2779 -.3074  
40.000 -.2797 -.2917

ALPHA ( 2 ) = .072 BETA ( 1 ) = .163 MACH = .59620 Q = 593.87 P = 2387.1 RN/L = 4.8288

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2695 -.3117  
40.000 -.2635 -.2887

ALPHA ( 3 ) = 4.077 BETA ( 1 ) = .160 MACH = .59680 Q = 595.04 P = 2386.4 RN/L = 4.8327

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2539 -.2953  
40.000 -.2723 -.2773

ALPHA ( 4 ) = 9.047 BETA ( 1 ) = .158 MACH = .59710 Q = 595.63 P = 2386.4 RN/L = 4.8284

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2526 -.2914  
40.000 -.2606 -.2760

PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
BDFLAP = -11.700 L-ELVN = -10.000  
R-ELVN = 10.000 MACH = .600

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP UP (XEBF85)

ALPHA ( 5 ) = 12.046 BETA ( 1 ) = .156 MACH = .59710 Q = 595.63 P = 2386.4 RV/L = 4.8340

SECTION ( 1 ) BODY FLAP UPPER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
40.000 -.2854  
40.000 -.2723 -.2791

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG01) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.099 BETA ( 1 ) = -3.881 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1908 .1870  
 40.000 .0392 -.0294

ALPHA ( 1 ) = -4.089 BETA ( 2 ) = .154 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1812 .1779  
 40.000 .1021 .0439

ALPHA ( 1 ) = -4.099 BETA ( 3 ) = 4.236 MACH = 1.3933 Q = 599.80 P = 441.36 RN/L = 2.9078

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1848 .1769  
 40.000 .0374 .0856

ALPHA ( 2 ) = -.076 BETA ( 1 ) = -3.908 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2394 .2289  
 40.000 .1458 .0818

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -14DA/B/C/R ORB BODY FLAP LMR

(XEB601)

ALPHA ( 2 ) = -.071 BETA ( 2 ) = .147 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2514 .2337  
40.000 .1435 .0929

ALPHA ( 2 ) = -.059 BETA ( 3 ) = 4.215 MACH = 1.3937 Q = 599.50 P = 440.89 RN/L = 2.9103

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2397 .2232  
40.000 .1463 .0975

ALPHA ( 3 ) = 3.825 BETA ( 1 ) = -3.904 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3321 .3094  
40.000 .2403 .1640

ALPHA ( 3 ) = 3.826 BETA ( 2 ) = .146 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3261 .3215  
40.000 .2221 .1542

ALPHA ( 3 ) = 3.827 BETA ( 3 ) = 4.205 MACH = 1.3940 Q = 600.01 P = 441.12 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3342 .3056  
40.000 .2124 .1583

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8601)

ALPHA ( 4 ) = 7.859 BETA ( 1 ) = -3.903 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4429 .3833  
40.000 .3220 .2313

ALPHA ( 4 ) = 7.859 BETA ( 2 ) = .143 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4330 .3756  
40.000 .3155 .2327

ALPHA ( 4 ) = 7.869 BETA ( 3 ) = 4.207 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9058

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4397 .3809  
40.000 .3064 .2352

ALPHA ( 5 ) = 11.904 BETA ( 1 ) = -3.884 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5473 .4526  
40.000 .4113 .2825

ALPHA ( 5 ) = 11.913 BETA ( 2 ) = .151 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5399 .4483  
40.000 .4059 .2957

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LNR (XE8601)

ALPHA ( 5 ) = 11.909 BETA ( 3 ) = 4.219 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9230

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5424 .4529  
40.000 .3947 .3095

ALPHA ( 6 ) = 15.872 BETA ( 1 ) = -3.862 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6373 .5126  
40.000 .4847 .3371

ALPHA ( 6 ) = 15.885 BETA ( 2 ) = .149 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6369 .5125  
40.000 .4833 .3532

ALPHA ( 6 ) = 15.901 BETA ( 3 ) = 4.249 MACH = 1.3935 Q = 599.60 P = 441.12 RN/L = 2.9239

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6283 .5132  
40.000 .4722 .3532

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## TABULATED PRESSURE DATA - 0A148 ( AYES 11-073-1 )

( XE8002 ) ( 05 AUG 75 )

AYES 11-073(0A148) -140A/B/C/R ORB BODY FLAP L/R

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 R-ELVN = .000 L-ELVN = .000  
 MACH = .000 MACH = 1.250

ALPHA ( 1 ) = -4.081 BETA ( 1 ) = -3.888 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2149 -1745  
 40.000 .0378 -.0035

ALPHA ( 1 ) = -4.075 BETA ( 2 ) = .154 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2088 .1828  
 40.000 .0703 .0230

ALPHA ( 1 ) = -4.083 BETA ( 3 ) = 4.234 MACH = 1.2475 Q = 599.57 P = 550.40 RN/L = 3.0108

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2058 .1533  
 40.000 .0981 .0371

ALPHA ( 2 ) = -.037 BETA ( 1 ) = -3.909 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2549 .2141  
 40.000 .1441 .0893



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8602)

ALPHA ( 2 ) = -.032 BETA ( 2 ) = .147 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2761 .2265  
40.000 .1340 .0779

ALPHA ( 3 ) = -.038 BETA ( 3 ) = 4.211 MACH = 1.2477 Q = 599.51 P = 550.16 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI  
.000 .2523 .2089  
40.000 .1432 .0720

ALPHA ( 3 ) = 3.858 BETA ( 1 ) = -3.910 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3580 .2891  
40.000 .2462 .1589

ALPHA ( 3 ) = 3.853 BETA ( 2 ) = .139 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3548 .2852  
40.000 .2238 .1332

ALPHA ( 3 ) = 3.860 BETA ( 3 ) = 4.204 MACH = 1.2468 Q = 599.65 P = 551.10 RN/L = 3.0140

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3534 .2842  
40.000 .2148 .1253

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB602)

ALPHA ( 4 ) = 7.842 BETA ( 1 ) = -3.905 MACH = 1.2465 Q = 599.60 P = 551.34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4548 .3502  
40.000 .3192 .2020

ALPHA ( 4 ) = 7.841 BETA ( 2 ) = .143 MACH = 1.2465 Q = 599.60 P = 551.34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4522 .3468  
40.000 .3085 .1929

ALPHA ( 4 ) = 7.841 BETA ( 3 ) = 4.209 MACH = 1.2465 Q = 599.60 P = 551.34 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4576 .3522  
40.000 .3052 .1953

ALPHA ( 5 ) = 11.942 BETA ( 1 ) = -3.887 MACH = 1.2452 Q = 599.20 P = 552.04 RN/L = 3.0172

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5420 .4023  
40.000 .3910 .2415

ALPHA ( 5 ) = 11.952 BETA ( 2 ) = .148 MACH = 1.2452 Q = 599.20 P = 552.04 RN/L = 3.0172

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5439 .3395  
40.000 .3859 .2355

TABULATED PRESSURE DATA - 0A146 ( AMES 11-073-1 )

AMES 11-073(0A146) -140A/B/C/R ORB BODY FLAP LWR (XE8002)

ALPHA ( 5 ) = 11.946 BETA ( 3 ) = 4.215 MACH = 1.2452 Q = 599.20 P = 552.04 RN/L = 3.0172

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5439 .4002  
40.000 .3760 .2446

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -14DA/B/C/R ORB BODY FLAP LWR

(XEB003) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2697.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LPEF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.048 BETA ( 1 ) = -3.881 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2527 .1724  
 40.000 .0849 .0535

ALPHA ( 1 ) = -4.035 BETA ( 2 ) = .153 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2594 .1926  
 40.000 .0935 .0593

ALPHA ( 1 ) = -4.044 BETA ( 3 ) = 4.236 MACH = 1.0978 Q = 599.56 P = 710.72 RN/L = 3.1865

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2332 .1547  
 40.000 .0966 .0393

ALPHA ( 2 ) = -.027 BETA ( 1 ) = -3.903 MACH = 1.0988 Q = 599.62 P = 709.54 RN/L = 3.1868

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2787 .1994  
 40.000 .1812 .1093

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 55.000  
 BDFLAP = 16.300 L-ELVN = .020  
 R-ELVN = .000 MACH = 1.100

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB603)

RN/L = 3.1858

P = 709.54

Q = 599.62

MACH = 1.0988

ALPHA ( 2 ) = -.023 BETA ( 2 ) = .144

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0100 1.0460

PHI .000 .3203 .2153  
40.000 .1671 .0844

RN/L = 3.1868

P = 709.54

Q = 599.62

MACH = 1.0988

ALPHA ( 2 ) = -.029 BETA ( 3 ) = 4.209

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI .000 .2777 .2003  
40.000 .1551 .0617

RN/L = 3.1855

P = 710.01

Q = 599.43

MACH = 1.0982

ALPHA ( 3 ) = 3.893 BETA ( 1 ) = -3.903

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI .000 .3654 .2460  
40.000 .2544 .1319

RN/L = 3.1855

P = 710.01

Q = 599.43

MACH = 1.0982

ALPHA ( 3 ) = 3.894 BETA ( 2 ) = .147

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI .000 .3903 .2511  
40.000 .2394 .1154

RN/L = 3.1855

P = 710.01

Q = 599.43

MACH = 1.0982

ALPHA ( 3 ) = 3.895 BETA ( 3 ) = 4.201

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI .000 .3644 .2455  
40.000 .2072 .0923

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INSULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEB003)

ALPHA ( 4 ) = 7.00° BETA ( 1 ) = -3.898 MACH = 1.0976 Q = 599.10 P = 710.48 RNU/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4503 .2842  
40.000 .3002 .1421

ALPHA ( 4 ) = 7.885 BETA ( 2 ) = .144 MACH = 1.0976 Q = 599.10 P = 710.48 RNU/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4595 .2681  
40.000 .2976 .1334

ALPHA ( 4 ) = 7.925 BETA ( 3 ) = 4.200 MACH = 1.0976 Q = 599.10 P = 710.48 RNU/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4517 .2333  
40.000 .2720 .1248

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.881 MACH = 1.0978 Q = 599.38 P = 710.48 RNU/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .5295 .3195  
40.000 .3333 .1696

ALPHA ( 5 ) = 11.99° BETA ( 2 ) = .149 MACH = 1.0978 Q = 599.38 P = 710.48 RNU/L = 3.1859

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .5378 .3238  
40.000 .3719 .1682

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEB303)

AMES 11-073(0A148) -140A/B/C/R CRB BODY FLAP LWR

RW/L = 3.1855

\* 7110.42

P

= 599.38

Q

= 1.0978

MACH

= 4.212

BETA ( 3 ) =

11.992

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP LOWER

X/LB 1.0190 1.0360

PHI

.5237

.3178

.000

.3484

.1493

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## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XE8G04) 05 AUG 75

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

## REFERENCE DATA

SRCF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. X<sup>2</sup>  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y<sup>2</sup>  
 BRPF = 936.0080 IN. ZMRP = 375.0000 IN. Z<sup>2</sup>  
 SCALE = .0500

ALPHA ( 1 ) = -4.038 BETA ( 1 ) = -3.880 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2990 .1045  
 40.000 .1537 .0175

ALPHA ( 1 ) = -4.035 BETA ( 2 ) = .153 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3229 .1159  
 40.000 .1486 .0174

ALPHA ( 1 ) = -4.047 BETA ( 3 ) = 4.237 MACH = .89913 Q = 599.67 P = 1059.7 RN/L = 3.5733

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2874 .0959  
 40.000 .1821 -.0072

ALPHA ( 2 ) = -.025 BETA ( 1 ) = -3.907 MACH = .89827 Q = 599.10 P = 1060.7 RN/L = 3.5698

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2978 .1012  
 40.000 .1951 .0345

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = .000 MACH = .900



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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB004)

ALPHA ( 2 ) = -.020 BETA ( 2 ) = .144 MACH = .89827 Q = 599.10 P = 1060.7 RN/L = 3.5698

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3206 .1072  
40.000 .1831 .0165

ALPHA ( 2 ) = -.027 BETA ( 3 ) = 4.215 MACH = .89827 Q = 599.10 P = 1060.7 RN/L = 3.5698

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2978 .0958  
40.000 .1710 -.0143

ALPHA ( 3 ) = 3.898 BETA ( 1 ) = -3.912 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3498 .1203  
40.000 .2247 .0473

ALPHA ( 3 ) = 3.896 BETA ( 2 ) = .152 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3521 .1187  
40.000 .2197 .0258

ALPHA ( 3 ) = 3.899 BETA ( 3 ) = 4.208 MACH = .89833 Q = 598.89 P = 1060.2 RN/L = 3.5704

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3510 .1207  
40.000 .1991 .0031

TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8604)

ALPHA ( 4 ) = 7.895 BETA ( 1 ) = -3.903 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3922 .1354  
40.000 .2591 .0572

ALPHA ( 4 ) = 7.900 BETA ( 2 ) = .140 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3906 .1336  
40.000 .2434 .0289

ALPHA ( 4 ) = 7.897 BETA ( 3 ) = 4.209 MACH = .89900 Q = 599.51 P = 1059.7 RN/L = 3.5708

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3927 .1304  
40.000 .2235 .0052

ALPHA ( 5 ) = 11.985 BETA ( 1 ) = -3.890 MACH = .89830 Q = 599.10 P = 1060.7 RN/L = 3.5735

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4205 .1384  
40.000 .2755 .0414

ALPHA ( 5 ) = 11.993 BETA ( 2 ) = .152 MACH = .89830 Q = 599.10 P = 1060.7 RN/L = 3.5735

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4168 .1419  
40.000 .2584 .0231

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8604)

ALPHA ( 5 ) = 11.982 BETA ( 3 ) = 4.222 MACH = .89830 Q = 599.10 P = 1060.7 RN/L = 3.5735

SECTION 1 11BODY FLAP LOWER

DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

FHI

4.161 1.1359  
40.000 .2457 -.0033

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

IXE8605) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2090.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -3.996 BETA ( 1 ) = -7.893 MACH = .59580 Q = 593.15 P = 2387.2 RNV/L = 4.8118

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2338 .0140  
40.000 .1430 -.0216

ALPHA ( 1 ) = -3.981 BETA ( 2 ) = -3.877 MACH = .59580 Q = 593.15 P = 2387.2 RNV/L = 4.8118

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2457 .0164  
40.000 .1439 -.0364

ALPHA ( 1 ) = -3.973 BETA ( 3 ) = .156 MACH = .59580 Q = 593.15 P = 2387.2 RNV/L = 4.8118

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2629 .0227  
40.000 .1250 -.0459

ALPHA ( 1 ) = -3.981 BETA ( 4 ) = 4.231 MACH = .59580 Q = 593.15 P = 2387.2 RNV/L = 4.8118

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2336 .0107  
40.000 .1381 -.0537

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
BOFLAP = 16.300 L-ELVN = .000  
R-ELVN = .000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G05)

ALPHA ( 1 ) = -3.995 BETA ( 5 ) = 8.308 MACH = .59580 Q = 593.15 P = 2387.2 RN/L = 4.8118

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2375 -.0020  
40.000 .1186 -.0733

ALPHA ( 2 ) = -.001 BETA ( 1 ) = -7.930 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2551 -.0218  
40.000 .1750 -.0190

ALPHA ( 2 ) = .009 BETA ( 2 ) = -3.896 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2524 -.0182  
40.000 .1652 -.0351

ALPHA ( 2 ) = .009 BETA ( 3 ) = .144 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2575 -.0229  
40.000 .1442 -.0457

ALPHA ( 2 ) = .008 BETA ( 4 ) = 4.214 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2564 -.0158  
40.000 .1330 -.0590

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5792

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE6605)

ALPHA ( 2 ) = .003 BETA ( 5 ) = 8.269 MACH = .59552 Q = 592.56 P = 2387.2 RN/L = 4.8092

SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.2644	.0102
40.000	.1196	-.0646

ALPHA ( 3 ) = 3.907 BETA ( 1 ) = -7.936 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.2678	.0283
40.000	.1999	-.0192

ALPHA ( 3 ) = 3.912 BETA ( 2 ) = -3.897 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.2787	.0319
40.000	.1842	-.0254

ALPHA ( 3 ) = 3.909 BETA ( 3 ) = .143 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.2754	.0210
40.000	.1617	-.0397

ALPHA ( 3 ) = 3.918 BETA ( 4 ) = 4.207 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8063

SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.2789	.0212
40.000	.1426	-.0492

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8005)  
 ALPHA ( 3 ) = 3.922 BETA ( 5 ) = 8.252 MACH = .59500 Q = 591.74 P = 2387.9 RN/L = 4.8053

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .2871 .0184  
 40.000 .1406 -.0456

ALPHA ( 4 ) = 7.955 BETA ( 1 ) = -7.918 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .3030 .0335  
 40.000 .2054 -.0093

ALPHA ( 4 ) = 7.965 BETA ( 2 ) = -3.894 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .3046 .0359  
 40.000 .1993 -.0258

ALPHA ( 4 ) = 7.970 BETA ( 3 ) = .145 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .3028 .0365  
 40.000 .1820 -.0284

ALPHA ( 4 ) = 7.969 BETA ( 4 ) = 4.201 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .3068 .0371  
 40.000 .1562 -.0296

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5794

AMES 11-073(0A148) -140A7B/C/R OR3 BODY FLAP LWR (XEB005)

ALPHA ( 4 ) = 7.967 BETA ( 5 ) = 8.254 MACH = .59428 Q = 590.57 P = 2388.9 RN/L = 4.8012

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3083 .0244  
40.000 .1569 -.0475

ALPHA ( 5 ) = 12.002 BETA ( 1 ) = -7.881 MACH = .59502 Q = 591.86 P = 2388.2 RN/L = 4.8047

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3303 .0473  
40.000 .2211 -.0020

ALPHA ( 5 ) = 12.020 BETA ( 2 ) = -3.874 MACH = .59502 Q = 591.86 P = 2388.2 RN/L = 4.8047

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3318 .0552  
40.000 .2159 -.0069

ALPHA ( 5 ) = 12.028 BETA ( 3 ) = .150 MACH = .59502 Q = 591.86 P = 2388.2 RN/L = 4.8047

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3350 .0571  
40.000 .2317 -.0151

ALPHA ( 5 ) = 12.028 BETA ( 4 ) = 4.211 MACH = .59502 Q = 591.86 P = 2388.2 RN/L = 4.8047

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3259 .0429  
40.000 .1867 -.0259



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5795

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LNR (XE8605)

ALPHA ( 5 ) = 12.020 BETA ( 5 ) = 8.278 MACH = .59502 Q = 591.86 P = 2388.2 RN/L = 4.8047

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3284 .0424  
40.000 .1763 -.0393

DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 5796

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XL8606) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -7.883 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3439 .1018  
 40.000 .2512 .0466

ALPHA ( 1 ) = -4.010 BETA ( 2 ) = -3.877 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2633 .1054  
 40.000 .2588 .0446

ALPHA ( 1 ) = -3.994 BETA ( 3 ) = .154 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3820 .1090  
 40.000 .2334 .0369

ALPHA ( 1 ) = -4.001 BETA ( 4 ) = 4.235 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3511 .1014  
 40.000 .2475 .0141

PARAMETRIC DATA

RUDDER = .000 SPCBRX = 55.000  
 BOFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5797

AMES 11-073(0A148) - (40A/B/C/R ORB BODY FLAP LWR (XEBG08)

ALPHA ( 1 ) = -4.013 BETA ( 5 ) = 8.308 MACH = .59594 Q = 593.39 P = 2387.0 RN/L = 4.8396

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3392 -.0932  
40.000 .2177 -.0001

ALPHA ( 2 ) = .023 BETA ( 1 ) = -7.929 MACH = .59530 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3919 .1090  
40.000 .2347 .0597

ALPHA ( 2 ) = .033 BETA ( 2 ) = -3.896 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3653 .1073  
40.000 .2877 .0472

ALPHA ( 2 ) = .035 BETA ( 3 ) = .147 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3778 .1129  
40.000 .2555 .0317

ALPHA ( 2 ) = .050 BETA ( 4 ) = 4.214 MACH = .59630 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3693 .1099  
40.000 .2357 .0105

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5788

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBGDS)

ALPHA ( 2 ) = .045 BETA ( 5 ) = 8.269 MACH = .59530 Q = 593.84 P = 2385.7 RN/L = 4.8179

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0161 1.0460

PHI

.000 .3875 .1038  
40.000 .2233 .0056

ALPHA ( 3 ) = 3.911 BETA ( 1 ) = -7.932 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8145

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 .4223 .1167  
40.000 .3242 .0349

ALPHA ( 31 ) = 3.915 BETA ( 2 ) = -3.897 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8145

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4013 .1207  
40.000 .3135 .0317

ALPHA ( 31 ) = 3.912 BETA ( 31 ) = .150 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8145

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4019 .1185  
40.000 .2216 .0357

ALPHA ( 31 ) = 3.921 BETA ( 4 ) = 4.204 MACH = .59594 Q = 593.13 P = 2385.8 RN/L = 4.8145

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4044 .1149  
40.000 .2639 .0332

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5739

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB005)

ALPHA ( 3 ) = 3.925 BETA ( 5 ) = 8.248 MACH = .59594 Q = 593.13 P = 2385.16 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4173 .1041  
40.000 .2529 .0172

ALPHA ( 4 ) = 7.957 BETA ( 1 ) = -7.908 MACH = .59512 Q = 593.49 P = 2385.17 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4457 .1259  
40.000 .3438 .0745

ALPHA ( 4 ) = 7.965 BETA ( 2 ) = -3.991 MACH = .59512 Q = 593.49 P = 2385.17 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4338 .1326  
40.000 .3235 .0628

ALPHA ( 4 ) = 7.972 BETA ( 3 ) = .143 MACH = .59512 Q = 593.49 P = 2385.17 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4411 .1299  
40.000 .3236 .0436

ALPHA ( 4 ) = 7.971 BETA ( 4 ) = 4.201 MACH = .59512 Q = 593.49 P = 2385.17 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4330 .1274  
40.000 .2882 .0352

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A14B ( AMES 11-073-1 )

PAGE 5800

AMES 11-073(0A14B) -140A/B/C/R ORB BODY FLAP LWR (XE8606)

ALPHA ( 4 ) = 7.959 BETA ( 5 ) = 8.255 MACH = .59612 Q = 593.49 P = 2385.7 RN/L = 4.8178

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4435 .1165  
40.000 .2747 .0165

ALPHA ( 5 ) = 12.008 BETA ( 1 ) = -7.872 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4715 .1414  
40.000 .3563 .0632

ALPHA ( 5 ) = 12.030 BETA ( 1 ) = -3.872 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4575 .1472  
40.000 .3432 .0738

ALPHA ( 5 ) = 12.036 BETA ( 3 ) = .140 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4634 .1438  
40.000 .3229 .0595

ALPHA ( 5 ) = 11.949 BETA ( 4 ) = 4.211 MACH = .47710 Q = 475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4643 .1401  
40.000 .3099 .0396

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( ANES 11-073-1 )

PAGE 5801

ANES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8608)

ALPHA ( 5 ) = 12.026 BETA ( 5 ) = 8.275 MACH = .47710 0 = .475.06 P = 1908.1 RN/L = 3.8563

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4687 .1331  
40.000 .2926 .0209

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5802

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8607) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0880 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.068 BETA ( 1 ) = -3.876 MACH = .89933 Q = 599.81 P = 1059.5 RN/L = 3.5834

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3989 .2273  
 40.000 .2203 .1282

ALPHA ( 1 ) = -4.048 BETA ( 2 ) = .153 MACH = .89933 Q = 599.81 P = 1059.5 RN/L = 3.5834

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4234 .2389  
 40.000 .2630 .1234

ALPHA ( 1 ) = -4.057 BETA ( 3 ) = 4.237 MACH = .89933 Q = 599.81 P = 1059.5 RN/L = 3.5834

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3928 .2179  
 40.000 .2929 .0968

ALPHA ( 2 ) = .010 BETA ( 1 ) = -3.903 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5890

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3746 .2205  
 40.000 .2918 .1484

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .900



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5803

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG07)

ALPHA ( 2 ) = .014 BETA ( 2 ) = .148 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5880

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4199 .2321  
40.000 .2837 .1268

ALPHA ( 2 ) = .013 BETA ( 3 ) = 4.211 MACH = .90060 Q = 601.03 P = 1058.5 RN/L = 3.5880

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3915 .2212  
40.000 .2855 .0962

ALPHA ( 3 ) = 3.998 BETA ( 1 ) = -3.905 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4532 .2446  
40.000 .3667 .1622

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = .135 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4570 .2395  
40.000 .3358 .1262

ALPHA ( 3 ) = 3.920 BETA ( 3 ) = 4.206 MACH = .90070 Q = 600.82 P = 1058.0 RN/L = 3.5882

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4597 .2437  
40.000 .3126 .1026

ORIGINAL PAGE 14  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5804

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LMR

(XE8607)

ALPHA ( 4 ) = 7.946 BETA ( 1 ) = -3.900 MACH = .89867 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.000	.5123	.2585
	40.000	.4057	.1516

ALPHA ( 4 ) = 7.956 BETA ( 2 ) = .143 MACH = .89867 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.000	.5106	.2541
	40.000	.3708	.1305

ALPHA ( 4 ) = 7.955 BETA ( 3 ) = 4.206 MACH = .89867 Q = 599.20 P = 1059.9 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.000	.5102	.2501
	40.000	.3456	.0970

ALPHA ( 5 ) = 11.987 BETA ( 1 ) = -3.885 MACH = .89947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.000	.5581	.2651
	40.000	.4255	.1552

ALPHA ( 5 ) = 11.997 BETA ( 2 ) = .148 MACH = .89947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	.000	.5576	.2634
	40.000	.4030	.1234

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5805

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8607)

ALPHA ( 5 ) = 11.987 BETA ( 3 ) = 4.223 MACH = .89947 Q = 599.98 P = 1059.5 RN/L = 3.5879

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5592 .2681  
40.000 .3800 .1061

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5806

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG08) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2890.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.017 BETA ( 1 ) = -3.884 MACH = 1.3953 0 = 598.61 P = 439.24 RN/L = 2.9155

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1844 .3093  
 40.000 .0816 .1287

ALPHA ( 2 ) = -3.966 BETA ( 2 ) = .155 MACH = 1.3953 0 = 598.61 P = 439.24 RN/L = 2.9155

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1771 .2825  
 40.000 .1592 .1845

ALPHA ( 3 ) = -4.012 BETA ( 3 ) = 4.241 MACH = 1.3953 0 = 598.61 P = 439.24 RN/L = 2.9155

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1843 .2993  
 40.000 .1403 .1812

ALPHA ( 2 ) = -.007 BETA ( 1 ) = -3.899 MACH = 1.3961 0 = 598.93 P = 439.00 RN/L = 2.9175

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2501 .3259  
 40.000 .2231 .2262

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 65.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

DATE 13 FEB 75  
 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR  
 (XE8G08)

ALPHA ( 2 ) = -.001 BETA ( 2 ) = .155 MACH = 1.3961 Q = 598.93 P = 439.00 RN/L = 2.9179

SECTION ( 1 ) BODY FLAP LOWER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2467 .3269  
 40.000 .2027 .2238

ALPHA ( 2 ) = -.006 BETA ( 3 ) = 4.218 MACH = 1.3961 Q = 598.93 P = 439.00 RN/L = 2.9179

SECTION ( 1 ) BODY FLAP LOWER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2473 .3189  
 40.000 .1939 .2170

ALPHA ( 3 ) = 3.849 BETA ( 1 ) = -3.909 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER  
 DEPENDENT VARIABLE CP

X/LB 1.0190 .0460

PHI  
 .000 .3423 .4138  
 40.000 .3024 .3058

ALPHA ( 3 ) = 3.967 BETA ( 2 ) = .154 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3376 .4056  
 40.000 .2812 .2924

ALPHA ( 3 ) = 3.885 BETA ( 3 ) = 4.208 MACH = 1.3959 Q = 599.13 P = 439.24 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER  
 DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3292 .4079  
 40.000 .2557 .2831

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEBG08)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

RN/L = 2.9176

ALPHA ( 4 ) = 7.858 BETA ( 1 ) = -3.901 MACH = 1.3952 Q = 599.12 P = 439.71

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .4533 .5091  
40.000 .3934 .3784

ALPHA ( 4 ) = 7.941 BETA ( 2 ) = .144 MACH = 1.3952 Q = 599.12 P = 439.71

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .4515 .4278  
40.000 .3771 .3312

ALPHA ( 4 ) = 7.942 BETA ( 3 ) = 4.207 MACH = 1.3952 Q = 599.12 P = 439.71

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .4424 .5109  
40.000 .3529 .3737

ALPHA ( 5 ) = 11.290 BETA ( 1 ) = -3.828 MACH = 1.3944 Q = 599.11 P = 440.18

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .5778 .5991  
40.000 .4635 .4481

ALPHA ( 5 ) = 11.897 BETA ( 2 ) = .146 MACH = 1.3944 Q = 599.11 P = 440.18

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .5575 .5971  
40.000 .4835 .4491

ALPHA ( 5 ) = 11.897 BETA ( 2 ) = .146 MACH = 1.3944 Q = 599.11 P = 440.18

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .5575 .5971  
40.000 .4835 .4491

ALPHA ( 5 ) = 11.897 BETA ( 2 ) = .146 MACH = 1.3944 Q = 599.11 P = 440.18

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
0.000 .5575 .5971  
40.000 .4835 .4491

ALPHA ( 5 ) = 11.897 BETA ( 2 ) = .146 MACH = 1.3944 Q = 599.11 P = 440.18

SECTION ( 1 ) BODY FLAP LOWER

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB008)

RN/L = 2.9183

P = 440.18

Q = 599.11

MACH = 1.3944

BETA ( 3 ) = 4.224

ALPHA ( 5 ) = 11.893

SECTION 1: BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5545 .5915  
40.000 .4537 .4479

ALPHA ( 6 ) = 15.905

BETA ( 1 ) = -3.863

MACH = 1.3948

Q = 599.11

P = 439.94

RN/L = 2.9186

SECTION 1: BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5934 .5939  
40.000 .5713 .5101

ALPHA ( 6 ) = 15.918

BETA ( 2 ) = .144

MACH = 1.3948

Q = 599.11

P = 439.94

RN/L = 2.9186

SECTION 1: BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .6616 .6531  
40.000 .5743 .5161

ALPHA ( 6 ) = 15.908

BETA ( 3 ) = 4.250

MACH = 1.3948

Q = 599.11

P = 439.94

RN/L = 2.9186

SECTION 1: BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .6505 .6649  
40.000 .5483 .5147

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5910

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG09) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.882 MACH = 1.2460 Q = 599.62 P = 551.80 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2359 .3161  
40.000 .0337 .1326

ALPHA ( 1 ) = -4.017 BETA ( 2 ) = .155 MACH = 1.2460 Q = 599.62 P = 551.80 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2126 .3324  
40.000 .1463 .1664

ALPHA ( 1 ) = -4.025 BETA ( 3 ) = 4.236 MACH = 1.2460 Q = 599.62 P = 551.30 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2397 .3012  
40.000 .1413 .1658

ALPHA ( 2 ) = .013 BETA ( 1 ) = -3.903 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0253

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2910 .3315  
40.000 .2333 .2314

PARAMETRIC DATA

RUDDER = .000 SPDRK = 95.000  
BDFLAP = 22.500 L-ELVN = .000  
R-ELVN = .000 MACH = 1.250



TABULATED PRESSURE DATA - 0A148 ( ANES 11-073-1 )

ANES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB009)

ALPHA ( 2 ) = .017 BETA ( 2 ) = .152 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0283

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2829 .3454  
40.000 .2039 .2110

ALPHA ( 2 ) = .013 BETA ( 3 ) = 4.217 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0283

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2789 .3234  
40.000 .2015 .2051

ALPHA ( 3 ) = 3.907 BETA ( 1 ) = -3.907 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3322 .4154  
40.000 .3255 .3045

ALPHA ( 3 ) = 3.907 BETA ( 2 ) = .148 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3877 .4123  
40.000 .2914 .2747

ALPHA ( 3 ) = 3.911 BETA ( 3 ) = 4.207 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0276

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3793 .4134  
40.000 .2892 .2705

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5812

AMES 11-073(0A148) -140A/B/C/R CRB BODY FLAP LWR

'XEBGJ2)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.903 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.2282

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5003 .4929  
40.000 .3974 .3501

ALPHA ( 4 ) = 7.889 BETA ( 2 ) = .143 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.2282

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4977 .4857  
40.000 .3964 .3479

ALPHA ( 4 ) = 7.857 BETA ( 3 ) = 4.208 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.3332

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4918 .4920  
40.000 .3765 .3394

ALPHA ( 5 ) = 11.833 BETA ( 1 ) = -3.985 MACH = 1.2447 Q = 599.41 P = 552.74 RN/L = 3.1371

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5995 .5502  
40.000 .4771 .4055

ALPHA ( 5 ) = 11.849 BETA ( 2 ) = .145 MACH = 1.2447 Q = 599.41 P = 552.74 RN/L = 3.1373

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5834 .5474  
40.000 .4765 .3957

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

PAGE 5813

AMES 11-073(0A148) -1404/E/C/R CFB BODY FLAP LWR

(XREFSDB)

ALPHA (5) = 11.848

BETA (3) =

4.220

MACH =

1.2447

Q

=

598.41

P

=

552.74

FNIL

\*

3.0279

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 11.0180 1.0460

PHI  
40.000 .5958  
.000 .4501  
-5502 .3911

REFERENCE DATA  
 SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRFF = 936.0560 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300  
 ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -3.883 MACH = 1.0977 Q = 598.52 P = 705.53 RN/L = 3.1914

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 .3320 .3251  
 40.000 .1421 .1741  
 ALPHA ( 1 ) = -4.035 BETA ( 2 ) = .155 MACH = 1.0977 Q = 598.52 P = 709.53 RN/L = 3.1914

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 .3150 .3406  
 40.000 .1859 .2077  
 ALPHA ( 1 ) = -4.042 BETA ( 3 ) = 4.235 MACH = 1.0977 Q = 598.52 P = 709.53 RN/L = 3.1914

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 .3205 .3320  
 40.000 .1528 .1872  
 ALPHA ( 2 ) = .020 BETA ( 1 ) = -3.899 MACH = 1.0996 Q = 598.85 P = 707.64 RN/L = 3.1885

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 .3264 .3229  
 40.000 .2683 .2522

PARAMETRIC DATA

RUDDER = .000 SPDBRK = 85.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5815

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG10)

ALPHA ( 2 ) = .025 BETA ( 2 ) = .152 MACH = 1.0996 Q = 598.85 P = 707.54 RN/L = 3.1885

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3939 .3595  
40.000 .2405 .2388

ALPHA ( 2 ) = .023 BETA ( 3 ) = 4.214 MACH = 1.0996 Q = 598.85 P = 707.54 RN/L = 3.1885

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2871 .3214  
40.000 .2307 .2028

ALPHA ( 3 ) = 3.934 BETA ( 1 ) = -3.903 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4306 .3843  
40.000 .3600 .2853

ALPHA ( 3 ) = 3.940 BETA ( 2 ) = .149 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4555 .3893  
40.000 .3290 .2619

ALPHA ( 3 ) = 3.944 BETA ( 3 ) = 4.204 MACH = 1.0985 Q = 598.62 P = 708.59 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4156 .3819  
40.000 .3029 .2342ORIGINAL PAGE 15  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG1D)

ALPHA ( 4 ) = 7.882 BETA ( 1 ) = -3.899 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5328 .4269  
40.000 .4073 .2981

ALPHA ( 4 ) = 7.887 BETA ( 2 ) = .144 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5564 .4293  
40.000 .4124 .2873

ALPHA ( 4 ) = 7.888 BETA ( 3 ) = 4.206 MACH = 1.0980 Q = 598.61 P = 709.30 RN/L = 3.1901

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5297 .4272  
40.000 .3850 .2672

ALPHA ( 5 ) = 11.921 BETA ( 1 ) = -3.873 MACH = 1.0991 Q = 599.16 P = 708.60 RN/L = 3.1919

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6373 .4625  
40.000 .4976 .3237

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .146 MACH = 1.0991 Q = 599.16 P = 708.60 RN/L = 3.1919

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5496 .4623  
40.000 .4372 .3089

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XESG10)

ALPHA ( 51 ) = 11.928 BETA ( 3 ) = 4.214 MACH = 1.0991 Q = 599.16 P = 708.60 RV/L = 3.1919

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
40.000 .6296 .4592  
40.000 .4697 .2859

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5818

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG11) ( 05 AUG 75 )

## REFERENCE DATA

SRF = 2840.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 956.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.057 BETA ( 1 ) = -3.873 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4044 .2239  
 40.000 .2322 .1251

ALPHA ( 1 ) = -4.047 BETA ( 2 ) = .148 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4290 .2363  
 40.000 .2753 .1217

ALPHA ( 1 ) = -4.057 BETA ( 3 ) = 4.239 MACH = .90043 Q = 600.11 P = 1057.3 RN/L = 3.5778

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3827 .2139  
 40.000 .2827 .0894

ALPHA ( 2 ) = .016 BETA ( 1 ) = -3.906 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.574

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3780 .2115  
 40.000 .3050 .0905

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = 85.000  
 BDFLAP = 22.500 L-ELVN = .000  
 R-ELVN = .000 MACH = .900



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G11)

ALPHA ( 2 ) = .014 BETA ( 2 ) = .39 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.5741

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4205 .2251  
40.000 .2860 .1143

ALPHA ( 2 ) = .024 BETA ( 3 ) = 4.220 MACH = .89947 Q = 599.38 P = 1058.3 RN/L = 3.5741

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .3819 .2205  
40.000 .2842 .0939

ALPHA ( 3 ) = 3.936 BETA ( 1 ) = -3.911 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4497 .2339  
40.000 .3638 .1479

ALPHA ( 3 ) = 3.937 BETA ( 2 ) = .151 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4557 .2321  
40.000 .3361 .1175

ALPHA ( 3 ) = 3.940 BETA ( 3 ) = 4.207 MACH = .89917 Q = 599.47 P = 1059.2 RN/L = 3.5758

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4539 .2383  
40.000 .3027 .0913ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEB011)

ALPHA ( 4 ) = 7.890 BETA ( 1 ) = -3.900 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5074 .2527  
40.000 .4050 .1531

ALPHA ( 4 ) = 7.894 BETA ( 2 ) = .145 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5141 .2505  
40.000 .3658 .1258

ALPHA ( 4 ) = 7.892 BETA ( 3 ) = 4.207 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5031 .2494  
40.000 .3420 .0990

ALPHA ( 5 ) = 11.932 BETA ( 1 ) = -3.884 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5797

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5528 .2601  
40.000 .4191 .1452

ALPHA ( 5 ) = 11.938 BETA ( 2 ) = .149 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 .5490 .2579  
40.000 .3924 .1183

DATE 13 FEB 75

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INSULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LHR

(XEBG11)

ALPHA ( 5 ) = 11.928 BETA ( 3 ) = 4.023 MACH = .89887 Q = 599.34 P = 1059.7 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X:LB 1.0:80 1.0:60

PHI:  
40.000 .5481 .2518  
.3629 .0909

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5822

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG12) ( 05 AUG 75 )

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.057 BETA ( 1 ) = -7.889 MACH = .59636 Q = 593.96

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3411 .0910  
40.000 .2490 .0324

ALPHA ( 1 ) = -4.036 BETA ( 2 ) = -3.874 MACH = .59636 Q = 593.96

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3532 .0297  
40.000 .2488 .0244

ALPHA ( 1 ) = -4.017 BETA ( 3 ) = .163 MACH = .59636 Q = 593.96

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.010 .3760 .0969  
40.000 .2245 .0157

ALPHA ( 1 ) = -4.025 BETA ( 4 ) = 4.234 MACH = .59636 Q = 593.96

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3451 .0916  
40.000 .2362 -.0075

PARAMETRIC DATA

RUDDER = .000 SPDRK = 85.000  
BDFLAP = 22.500 L-ELVN = .000  
R-ELVN = .000 MACH = .600

P = 2385.7 RN/L = 4.8150

P = 2385.7 RN/L = 4.8150

P = 2385.7 RN/L = 4.8150

P = 2385.7 RN/L = 4.8150

DATE 13 FEB 78

ABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB012)

ALPHA ( 1 ) = -4.040 SETA ( 5 ) = 8.307 MACH = .59636 Q = 593.96 P = 2385.7 RN/L = 4.8160

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3310 .0811  
40.000 .2064 -.0145

ALPHA ( 2 ) = .047 BETA ( 1 ) = -7.924 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3894 .0990  
40.000 .2809 .0454

ALPHA ( 2 ) = .057 BETA ( 2 ) = -3.897 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3622 .0954  
40.000 .2854 .0361

ALPHA ( 2 ) = .058 BETA ( 3 ) = .160 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3730 .0978  
40.000 .2848 .0167

ALPHA ( 2 ) = .052 BETA ( 4 ) = 4.215 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2633 .0995  
40.000 .2300 -.0029

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG12)

ALPHA ( 2 ) = .048 BETA ( 5 ) = 8.271 MACH = .59654 Q = 594.31 P = 2385.7 RN/L = 4.8134

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3831 .1003  
40.000 .2168 -.0105

ALPHA ( 3 ) = 3.956 BETA ( 1 ) = -7.937 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4185 .1090  
40.000 .3174 .0548

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = -3.898 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3967 .1069  
40.000 .3079 .0387

ALPHA ( 3 ) = 3.957 BETA ( 3 ) = .162 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3974 .1034  
40.000 .2716 .0205

ALPHA ( 3 ) = 3.954 BETA ( 4 ) = 4.202 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4005 .1097  
40.000 .2483 .0041

TASULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(CA148) -140A/B/C/R QRB BODY FLAP LAR

ALPHA ( 3 ) = 3.960 BETA ( 5 ) = 8.252 MACH = .59590 Q = 595.02 P = 2385.7 RN/L = 4.8202

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4133 .0982  
40.000 .2435 .0012

ALPHA ( 4 ) = 7.904 BETA ( 1 ) = -7.922 MACH = .59590 Q = 595.02 P = 2385.7 RN/L = 4.8202

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4421 .1169  
40.000 .3315 .0582

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.891 MACH = .59590 Q = 595.02 P = 2385.7 RN/L = 4.8202

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4335 .1198  
40.000 .3191 .0470

ALPHA ( 4 ) = 7.912 BETA ( 3 ) = .160 MACH = .59590 Q = 595.02 P = 2385.7 RN/L = 4.8202

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4331 .1202  
40.000 .2894 .0348

ALPHA ( 4 ) = 7.910 BETA ( 4 ) = 4.204 MACH = .59590 Q = 595.02 P = 2385.7 RN/L = 4.8202

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .4340 .1197  
40.000 .2777 .0148

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -14DA/B/C/R ORB BODY FLAP LWR

(XEB3112)

ALPHA ( 4 ) = 7.909 BETA ( 5 ) = 8.255 MACH = .59690 Q = 595.02 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4337 .1037  
40.000 .2709 .0066

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -7.879 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4653 .1303  
40.000 .3466 .0576

ALPHA ( 5 ) = 11.958 LTA ( 2 ) = -3.871 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4623 .1314  
40.000 .3354 .0553

ALPHA ( 5 ) = 11.970 BETA ( 3 ) = .156 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4511 .1357  
40.000 .3192 .0483

ALPHA ( 5 ) = 11.958 BETA ( 4 ) = 4.216 MACH = .59660 Q = 594.43 P = 2385.7 RN/L = 4.8162

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4623 .1330  
40.000 .3013 .0295



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TABLE 1 TO PRESSURE DATA - CA148 (AMES 11-073-1)

AMES 11-073(CA148) -1402/B/C/R ORB BODY FLAP LWR

IN L = 4.3152

ME93.2

P

= 594.43

Q

= .59650

MACH

= 8.279

BETA

(5) =

11.959

REF (5) =

11.959

DEPENDENT VARIABLE CP

SECTION 1 (1) BODY FLAP LOWER

X/LB 1.0180 1.0480

PHI

.003

.4649

.1300

.40103

.2990

.0159

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A14

073-1

PAGE 5628

AMES 11-07310A148

ORB BODY FLAP LWR

(XE8013) ( 05 AUG 75 )

# REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
REF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.106 BETA ( 1 ) = -3.886 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2614 -.2581  
40.000 -.2664 -.2505

ALPHA ( 1 ) = -4.030 BETA ( 2 ) = .154 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2575 -.2644  
40.000 -.2634 -.2389

ALPHA ( 1 ) = -4.039 BETA ( 3 ) = 4.249 MACH = 1.3946 Q = 599.93 P = 440.65 RN/L = 2.9118

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2583 -.2600  
40.000 -.2547 -.2301

ALPHA ( 2 ) = -.033 BETA ( 1 ) = -3.905 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2042 -.2049  
40.000 -.2360 -.2037

# PARAMETRIC DATA

RUDDER = .000 SPOBRK = 35.000  
DDFLAP = .000 L-ELVN = .000  
Z-ELVN = .000 MACH = 1.400

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A:48) -140A/B/C/R ORB BODY FLAP LWR (XE8G13)

ALPHA ( 2 ) = -.028 BETA ( 2 ) = .144 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1985 -.2113  
40.000 -.2256 -.2096

ALPHA ( 2 ) = -.033 BETA ( 3 ) = 4.229 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9115

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2021 -.2094  
40.000 -.2103 -.2063

ALPHA ( 3 ) = 3.651 BETA ( 1 ) = -3.904 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1460 -.1574  
40.000 -.1678 -.1510

ALPHA ( 3 ) = 3.949 BETA ( 2 ) = .141 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1486 -.1493  
40.000 -.1633 -.1680

ALPHA ( 3 ) = 3.862 BETA ( 3 ) = 4.219 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9157

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1492 -.1520  
40.000 -.1613 -.1779

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG13)

ALPHA ( 4 ) = 7.881 BETA ( 1 ) = -3.904 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0962 -.1097  
40.000 -.1064 -.1232

ALPHA ( 4 ) = 7.933 BETA ( 2 ) = .128 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0933 -.1135  
40.000 -.1168 -.1426

ALPHA ( 4 ) = 7.934 BETA ( 3 ) = 4.214 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9150

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0968 -.1096  
40.000 -.1274 -.1521

ALPHA ( 5 ) = 11.884 BETA ( 1 ) = -3.887 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0484 -.0719  
40.000 -.0901 -.1196

ALPHA ( 5 ) = 11.891 BETA ( 2 ) = .152 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0455 -.0709  
40.000 -.0840 -.1306

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/2/C/R ORB BODY FLAP LWR (XE8G13)

ALPHA ( 5 ) = 11.887 BETA ( 3 ) = 4.229 MACH = 1.3946 Q = 599.92 P = 440.65 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0579 -.0750  
40.000 -.1040 -.1223

ALPHA ( 6 ) = 15.888 BETA ( 1 ) = -3.863 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9215

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0039 -.0279  
40.000 -.0661 -.1129

ALPHA ( 6 ) = 15.865 BETA ( 2 ) = .152 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9215

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .0012 -.0214  
40.000 -.0558 -.0960

ALPHA ( 5 ) = 15.903 BETA ( 3 ) = 4.263 MACH = 1.3935 Q = 600.21 P = 441.59 RN/L = 2.9215

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .0008 -.0213  
40.000 -.0612 -.0953

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G14) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.010 BETA ( 1 ) = -3.884 MACH = 1.2452 Q = 553.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3241 -.3218  
 40.000 -.3339 -.2747

ALPHA ( 1 ) = -3.944 BETA ( 2 ) = .148 MACH = 1.2452 Q = 599.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3253 -.3334  
 40.000 -.3232 -.2625

ALPHA ( 1 ) = -4.009 BETA ( 3 ) = 4.237 MACH = 1.2452 Q = 599.70 P = 552.51 RN/L = 3.0159

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3267 -.3206  
 40.000 -.3144 -.2745

ALPHA ( 2 ) = .205 BETA ( 1 ) = -3.866 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2533 -.2552  
 40.000 -.2602 -.2201

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

DATE 13 FEB 75

TASULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G14)

ALPHA ( 2 ) = .220 BETA ( 2 ) = .185 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2543 -.2652  
40.000 -.2692 -.2294

ALPHA ( 2 ) = .215 BETA ( 3 ) = 4.264 MACH = 1.2472 Q = 601.31 P = 552.29 RN/L = 3.0212

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2565 -.2625  
40.000 -.2611 -.2431

ALPHA ( 3 ) = 3.903 BETA ( 1 ) = -3.872 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2014 -.2111  
40.000 -.1909 -.1743

ALPHA ( 3 ) = 3.903 BETA ( 2 ) = .184 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1934 -.2141  
40.000 -.2149 -.2009

ALPHA ( 3 ) = 3.907 BETA ( 3 ) = 4.256 MACH = 1.2473 Q = 600.93 P = 551.82 RN/L = 3.0266

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2019 -.2163  
40.000 -.2128 -.2126

DATE 13 FEB 78 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR IXE8G(4)  
 ALPHA ( 4 ) = 7.853 BETA ( 1 ) = -3.870 MACH = 1.2469 Q = 600.88 P = 552.06 RN/L = 3.0236

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1566 -.1727  
 40.000 -.1540 -.1611

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1583 -.1782  
 40.000 -.1578 -.1832

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1575 -.1772  
 40.000 -.1860 -.2045

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1575 -.1772  
 40.000 -.1860 -.2045

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1575 -.1772  
 40.000 -.1860 -.2045

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1214 -.1399  
 40.000 -.1387 -.1613

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1152 -.1392  
 40.000 -.1460 -.1775

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1152 -.1392  
 40.000 -.1460 -.1775

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1152 -.1392  
 40.000 -.1460 -.1775

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1152 -.1392  
 40.000 -.1460 -.1775

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460  
 PHI  
 .000 -.1152 -.1392  
 40.000 -.1460 -.1775



DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XE8614)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

RV/L = 3.0248

= 552.29

P

= 600.83

Q

= 1.2466

MACH

= 4.267

BETA

( 3 )

= 11.932

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION 1 BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1167 -.1479

40.000 -.1505 -.1927

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DATE 13 FEB 76

## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG15) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.072 BETA ( 1 ) = -3.851 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4.111 -3.319  
 43.000 -2.2987 -2.2816

ALPHA ( 1 ) = -4.070 BETA ( 2 ) = .189 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.765 -3.2547  
 40.000 -2.2952 -2.2535

ALPHA ( 1 ) = -4.075 BETA ( 3 ) = 4.283 MACH = 1.0992 Q = 599.97 P = 709.32 RN/L = 3.1890

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.383 -3.3175  
 40.000 -3.3698 -3.3103

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.863 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -3.399 -2.2309  
 40.000 -2.2518 -2.2284

## PARAMETRIC DATA

RUDDER = .000 SPDRK = 35.000  
 BOFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G15)

ALPHA ( 2 ) = -.004 BETA ( 2 ) = .183 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3438 -.2954  
40.000 -.2552 -.2341

ALPHA ( 2 ) = -.007 BETA ( 3 ) = 4.260 MACH = 1.0994 Q = 599.94 P = 709.08 RN/L = 3.1892

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3415 -.2837  
40.000 -.3163 -.2735

ALPHA ( 3 ) = 3.931 BETA ( 1 ) = -3.870 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3174 -.2741  
40.000 -.2494 -.2287

ALPHA ( 3 ) = 3.932 BETA ( 2 ) = .189 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3102 -.2836  
40.000 -.2476 -.2272

ALPHA ( 3 ) = 3.935 BETA ( 3 ) = 4.249 MACH = 1.0960 Q = 598.54 P = 711.89 RN/L = 3.1895

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3148 -.2555  
40.000 -.2779 -.2549

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8615)

ALPHA ( 4 ) = 7.884 BETA ( 1 ) = -3.865 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2781 -.2571  
40.000 -.2380 -.2256

ALPHA ( 4 ) = 7.965 BETA ( 2 ) = .179 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2540 -.2419  
40.000 -.2156 -.2089

ALPHA ( 4 ) = 7.966 BETA ( 3 ) = 4.242 MACH = 1.0986 Q = 599.29 P = 709.30 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2738 -.2531  
40.000 -.2462 -.2429

ALPHA ( 5 ) = 11.925 BETA ( 1 ) = -3.850 MACH = 1.0981 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2199 -.2161  
40.000 -.1905 -.2043

ALPHA ( 5 ) = 11.933 BETA ( 2 ) = .177 MACH = 1.0981 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2193 -.2321  
40.000 -.1933 -.2005

DATE 13 FEB 76

ISOLATED PRESSURE DATA - 02148 ( AMES 11-073-1 )

AMES 11-073(02148) -140A/B/C/R ORB BODY FLAP L/R

(XE8615)

ALPHA ( 5 ) = 11.928 BETA ( 3 ) = 4.259 MACH = 1.098 Q = 598.93 P = 709.53 RN/L = 3.1856

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.2389 -0.2335  
40.000 -0.2411 -0.2454

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REFERENCE DATA									
SREF =	2890.0000	50.FT.	XMRP =	1076.6800	IN. X0				
LREF =	474.8000	IN.	YMRP =	.0000	IN. Y0				
BREF =	935.0680	IN.	ZMRP =	375.0000	IN. Z0				
SCALE =	.0390								
ALPHA ( 1 ) =	-4.023	BETA ( 1 ) =	-3.852	MACH =	.90217	Q =	601.77	P =	1056.2 RN/L = 3.5811
SECTION ( 1 ) BODY FLAP LOWER									
DEPENDENT VARIABLE CP									
X/LB	1.0180	1.0460							
PHI									
	.000	-.0756	-.1493						
	40.000	-.1450	-.1597						
ALPHA ( 1 ) =	-3.925	BETA ( 2 ) =	.188	MACH =	.90217	Q =	601.77	P =	1056.2 RN/L = 3.5811
SECTION ( 1 ) BODY FLAP LOWER									
DEPENDENT VARIABLE CP									
X/LB	1.0160	1.0460							
PHI									
	.000	-.0713	-.1504						
	40.000	-.1275	-.1679						
ALPHA ( 1 ) =	-3.933	BETA ( 3 ) =	4.285	MACH =	.90217	Q =	601.77	P =	1056.2 RN/L = 3.5811
SECTION ( 1 ) BODY FLAP LOWER									
DEPENDENT VARIABLE CP									
X/LB	1.0180	1.0460							
PHI									
	.000	-.0861	-.1502						
	40.000	-.1017	-.1528						
ALPHA ( 2 ) =	.017	BETA ( 1 ) =	-3.871	MACH =	.89983	Q =	599.63	P =	1058.1 RN/L = 3.5748
SECTION ( 1 ) BODY FLAP LOWER									
DEPENDENT VARIABLE CP									
X/LB	1.0180	1.0460							
PHI									
	.000	-.0743	-.1478						
	40.000	-.1414	-.1495						

DATE 13 FEB 75

TABLE 1. TEMPERATURE DATA - CA148 ( AMES 11-073-1 )

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ANTS 11-073(OA146) -140A/B/C/R ORB BODY FLAP LWR

(91G83X)

$$\begin{array}{l} \text{ALPHA} (2) = .247 \\ \text{BETA} (2) = .183 \\ \text{MACH} = .89083 \\ Q = 599.69 \\ P = 1058.1 \\ \text{RN/L} = 3.5748 \end{array}$$

SECTION (1) BODY FLAP LOWER:

DEPENDENT VARIABLE CP

27X	1.0130	1.0460
-----	--------	--------

PHI  
 .000     -.0836     -.1568  
 40.000     -.1278     -.1625

Case	Year	Age	Sex	Height	Weight	WACU	P	RN/L	RN/L
1	1957	17	F	155	50	0.0083	0	1058.1	3.5748

SECTION ( ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X:3 1.0:50 1.0:460

241	000	0819	2951
000	000	6180	0941
000	000	0819	2951
000	000	6180	0941

[illegible]

SECTION : BODY FLAP LOWER

DEPENDENT VARIABLE CP

0540.1	1.0180	1.0450	E74X
--------	--------	--------	------

PH	000	000	000
14.5	1638	1485	1402

$\bar{P} = 600.53$      $\bar{Q} = 1056.6$      $\bar{R}/L = 3.5722$

SECTION ( ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X'19 1.0:80 1.0460

CH  
06-090 - 1117 - 0508 -- 1390  
06-090 - 1117 - 1461

[illegible]

SECTION (1) BODY FLAP LOWER

**DEPENDENT VARIABLE CP**

8718 1.0180 1.0460

PHI	-.000	-.0554	-.1411
49.000		-.1017	-.1520

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG16)

ALPHA ( 4 ) = 7.978 BETA ( 1 ) = -3.868 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0397 -.1308  
40.000 -.1325 -.1339

ALPHA ( 4 ) = 7.924 BETA ( 2 ) = .181 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0453 -.1309  
40.000 -.1093 -.1442

ALPHA ( 4 ) = .921 BETA ( 3 ) = 4.257 MACH = .90107 Q = 600.53 P = 1056.6 RN/L = 3.5741

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0458 -.1291  
40.000 -.0945 -.1462

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.856 MACH = .90000 Q = 599.65 P = 1057.6 RN/L = 3.5745

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0850 -.1255  
40.000 -.1360 -.1313

ALPHA ( 5 ) = 11.928 BETA ( 2 ) = .182 MACH = .90000 Q = 599.65 P = 1057.6 RN/L = 3.5745

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1036 -.1223  
40.000 -.1085 -.1291



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG16)

ALPHA ( 5 ) = 11.917 BETA ( 3 ) = 4.273 MACH = .9000 Q = 599.65 P = 1057.6 RN/L = 3.5745

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/Z-B 1.0180 1.0460

PHI

.000 -.0626 -.1359  
40.000 -.0838 -.1421

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G17) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0080 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.112 BETA ( 1 ) = -7.854 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.1312 -.1923  
 40.000 -.1279 -.1540

ALPHA ( 1 ) = -4.086 BETA ( 2 ) = -3.838 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.1212 -.1843  
 40.000 -.1231 -.1582

ALPHA ( 1 ) = -4.079 BETA ( 3 ) = .201 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.1178 -.1756  
 40.000 -.1356 -.1614

ALPHA ( 1 ) = -4.086 BETA ( 4 ) = 4.270 MACH = .59694 Q = 595.28 P = 2386.4 RN/L = 4.8216

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.1229 -.1767  
 40.000 -.1259 -.1629

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 35.000  
 BDFLAP = .300 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G17)

ALPHA ( 1 ) = -4.101 BETA ( 5 ) = 8.352 MACH = .59694 Q = 594.28 P = 2386.4 RN/L = 4.8216

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 -.1280 -.1872  
40.000 -.1283 -.1760

ALPHA ( 2 ) = .084 BETA ( 1 ) = -7.892 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 -.1182 -.1775  
40.000 -.1132 -.1457

ALPHA ( 2 ) = .094 BETA ( 2 ) = -3.858 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 -.1130 -.1764  
40.000 -.1199 -.1457

ALPHA ( 2 ) = .071 BETA ( 3 ) = .198 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 -.1170 -.1730  
40.000 -.1303 -.1580

ALPHA ( 2 ) = .058 BETA ( 4 ) = 4.249 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 -.1290 -.1766  
40.000 -.1319 -.1712

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB 300Y FLAP LWR (XEBG17)

ALPHA ( 2 ) = .061 BETA ( 5 ) = 8.308 MACH = .59642 Q = 594.20 P = 2386.3 RN/L = 4.8159

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1200 -.1751  
40.000 -.1193 -.1649

ALPHA ( 3 ) = 4.005 BETA ( 1 ) = -7.903 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1150 -.1718  
40.000 -.1102 -.1369

ALPHA ( 3 ) = 4.010 BETA ( 2 ) = -3.866 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1087 -.1705  
40.000 -.1118 -.1348

ALPHA ( 3 ) = 4.008 BETA ( 3 ) = .197 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1040 -.1514  
40.000 -.1155 -.1446

ALPHA ( 3 ) = 4.011 BETA ( 4 ) = 4.242 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1101 -.1678  
40.000 -.1177 -.1597

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8617)

ALPHA ( 3 ) = 0.014 BETA ( 5 ) = 8.290 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1124 -.1635  
40.000 -.1143 -.1640

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -7.891 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0950 -.1698  
40.000 -.1012 -.1337

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.864 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0938 -.1617  
40.000 -.0971 -.1285

ALPHA ( 4 ) = 7.919 BETA ( 3 ) = .190 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0935 -.1552  
40.000 -.1058 -.1393

ALPHA ( 4 ) = 7.918 BETA ( 4 ) = 4.240 MACH = .59650 Q = 594.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0941 -.1503  
40.000 -.0996 -.1442

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G17)

ALPHA ( 4 ) = 7.914 BETA ( 5 ) = 8.294 MACH = .59650 Q = 593.32 P = 2386.1 RN/L = 4.8187

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1058 -.1701  
40.000 -.1084 -.1678

ALPHA ( 5 ) = 11.926 BETA ( 1 ) = -7.855 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0797 -.1522  
40.000 -.0887 -.1232

ALPHA ( 5 ) = 11.949 BETA ( 2 ) = -3.840 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0724 -.1468  
40.000 -.0829 -.1177

ALPHA ( 5 ) = 11.954 BETA ( 3 ) = .189 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0719 -.1479  
40.000 -.0897 -.1301

ALPHA ( 5 ) = 11.952 BETA ( 4 ) = 4.250 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8170

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0806 -.1434  
40.000 -.0861 -.1424

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR  
(XEBG17)  
RN/L = 4.8170

P = 2386.5

BETA ( 5 ) = 11.942  
8.320 MACH = .59628 0 = 593.97

SECTION ( ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-.0782 -.1432  
40.000 -.0951 -.1518

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )  
 AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG18) : 05 AUG 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.050 BETA ( 1 ) = -3.854 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.451 -4.585  
 40.000 -4.580 -4.3406

ALPHA ( 1 ) = -4.042 BETA ( 2 ) = .192 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.413 -4.550  
 40.000 -4.421 -4.3461

ALPHA ( 1 ) = -4.050 BETA ( 3 ) = 4.205 MACH = 1.3965 Q = 599.95 P = 439.47 RN/L = 2.9144

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.411 -4.577  
 40.000 -4.202 -4.3423

ALPHA ( 2 ) = -4.050 BETA ( 1 ) = -3.874 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.096 -4.241  
 40.000 -4.355 -4.3196

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400



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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G18)

ALPHA ( 2 ) = -.025 BETA ( 2 ) = .136 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4033 -.4199  
40.000 -.4031 -.3136

ALPHA ( 2 ) = -.030 BETA ( 3 ) = 4.265 MACH = 1.3950 Q = 599.63 P = 440.18 RN/L = 2.9101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4083 -.4271  
40.000 -.3952 -.3082

ALPHA ( 3 ) = 3.919 BETA ( 1 ) = -3.877 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3749 -.3899  
40.000 -.3925 -.2839

ALPHA ( 3 ) = 3.922 BETA ( 2 ) = .185 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3740 -.3905  
40.000 -.3714 -.2802

ALPHA ( 3 ) = 3.923 BETA ( 3 ) = 4.255 MACH = 1.3940 Q = 599.41 P = 440.65 RN/L = 2.9155

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3774 -.3954  
40.000 -.3595 -.2745

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AMES 11-073(0A148) -140A/B/C/R OR6 BODY FLAP LMR (XEB618)  
 ALPHA ( 4 ) = 7.792 BETA ( 1 ) = -3.867 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI  
 .000 -.3460 -.3593  
 40.000 -.3400 -.2510  
 ALPHA ( 4 ) = 7.791 BETA ( 2 ) = .182 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI  
 .000 -.3396 -.3555  
 40.000 -.3449 -.2484  
 ALPHA ( 4 ) = 7.919 BETA ( 3 ) = 4.252 MACH = 1.3956 Q = 599.84 P = 439.94 RN/L = 2.9129

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI  
 .000 -.3460 -.3593  
 40.000 -.3579 -.2622  
 ALPHA ( 5 ) = 11.507 BETA ( 1 ) = -3.848 MACH = 1.3956 Q = 599.65 P = 439.24 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI  
 .000 -.3138 -.3314  
 40.000 -.3383 -.2336  
 ALPHA ( 5 ) = 11.815 BETA ( 2 ) = .187 MACH = 1.3956 Q = 599.65 P = 439.24 RN/L = 2.9163

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI  
 .000 -.3137 -.3349  
 40.000 -.3358 -.2762

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB318)

ALPHA ( 5 ) = 11.810 BETA ( 3 ) = 4.268 MACH = 1.3955 Q = 599.65 P = 439.24 RN/L = 2.9183

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3179 -.3381  
40.000 -.3450 -.3298

ALPHA ( 6 ) = 15.906 BETA ( 1 ) = -3.833 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2989 -.3074  
40.000 -.3248 -.3067

ALPHA ( 6 ) = 15.920 BETA ( 2 ) = .184 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2842 -.3072  
40.000 -.3198 -.3191

ALPHA ( 6 ) = 15.910 BETA ( 3 ) = 4.299 MACH = 1.3951 Q = 599.73 P = 440.18 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2817 -.2993  
40.000 -.3181 -.3235

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

DATE 13 FEB 75

(XEBG15) 1 DE AUG 75

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

REFERENCE DATA  
 SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0090 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300  
 ALPHA ( 1 ) = -4.048 BETA ( 1 ) = -3.848 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0450  
 PHI  
 .000 -.5510 -.5712  
 40.000 -.5384 -.3769  
 ALPHA ( 1 ) = -3.974 BETA ( 2 ) = .192 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 -.5483 -.5628  
 40.000 -.5344 -.3880  
 ALPHA ( 1 ) = -3.984 BETA ( 3 ) = 4.283 MACH = 1.2478 Q = 600.12 P = 550.64 RN/L = 3.0180  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 -.5472 -.5552  
 40.000 -.5009 -.4089  
 ALPHA ( 2 ) = -.051 BETA ( 1 ) = -3.861 MACH = 1.2478 Q = 599.71 P = 550.67 RN/L = 3.0179  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP  
 X/LB 1.0180 1.0460  
 PHI  
 .000 -.5108 -.5295  
 40.000 -.5322 -.3520

PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8619)

ALPHA ( 2 ) = -.007 BETA ( 2 ) = .182 MACH = 1.2471 Q = 599.71 P = 550.87 RN/L = 3.0179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5084 -.5267  
40.000 -.4711 -.3623

ALPHA ( 2 ) = -.013 BETA ( 3 ) = 4.263 MACH = 1.2471 Q = 599.71 P = 550.87 RN/L = 3.0179

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5139 -.5315  
40.000 -.4705 -.3700

ALPHA ( 3 ) = 3.859 BETA ( 1 ) = -3.973 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4755 -.4959  
40.000 -.4610 -.3267

ALPHA ( 3 ) = 3.906 BETA ( 2 ) = .178 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4698 -.4932  
40.000 -.4446 -.3273

ALPHA ( 3 ) = 3.928 BETA ( 3 ) = 4.253 MACH = 1.2484 Q = 600.53 P = 550.41 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4745 -.4940  
40.000 -.4321 -.3195

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LWR (XE8619)

ALPHA ( 4 ) = 7.851 BETA ( 1 ) = -3.877 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4432 -.4631  
40.000 -.4200 -.3000

ALPHA ( 4 ) = 7.971 BETA ( 2 ) = .182 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4443 -.4675  
40.000 -.4156 -.3022

ALPHA ( 4 ) = 7.972 BETA ( 3 ) = 4.253 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4476 -.4682  
40.000 -.4440 -.3096

ALPHA ( 5 ) = 11.905 BETA ( 1 ) = -3.844 MACH = 1.2483 Q = 600.41 P = 550.41 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4191 -.4412  
40.000 -.4033 -.2789

ALPHA ( 5 ) = 11.915 BETA ( 2 ) = .187 MACH = 1.2483 Q = 600.41 P = 550.41 RN/L = 3.0228

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4178 -.4389  
40.000 -.4271 -.2941

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8619)

ALPHA ( 5 ) = 11.907    BETA ( 3 ) = 4.269    MACH = 1.2483    Q = 600.41    P = 550.41    RN/L = 3.0228

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    -.4201    -.4453  
40.000    -.4417    -.3175

(XE8620) ( 05 AUG 75 )  
AYES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
EREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.047 BETA ( 1 ) = -3.843 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.7043 -.6470  
40.000 -.5355 -.3963

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = .189 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.6944 -.6733  
40.000 -.5059 -.4080

ALPHA ( 1 ) = -3.999 BETA ( 3 ) = 4.285 MACH = 1.1022 Q = 601.66 P = 707.48 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.6905 -.6564  
40.000 -.5595 -.4700

ALPHA ( 2 ) = -.036 BETA ( 1 ) = -3.867 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.6548 -.6349  
40.000 -.5316 -.3671

PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
BOFLAP = -11.700 L-ELVN = .000  
R-ELVN = .000 MACH = 1.100



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## TABULATED PRESSURE DATA OA148 ( AMES 11-073-1 )

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP LWR  
(XE8G20)

ALPHA ( 2 ) = -.059 BETA ( 2 ) = .183 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

## SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6502 -.6678  
40.000 -.4868 -.3901

ALPHA ( 2 ) = -.052 BETA ( 3 ) = 4.261 MACH = 1.1011 Q = 601.17 P = 708.39 RN/L = 3.1906

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6593 -.6527  
40.000 -.5222 -.4304

ALPHA ( 3 ) = 3.856 BETA ( 1 ) = -3.869 MACH = 1.1013 Q = 601.26 P = 708.16 RN/L = 3.1838

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460 ✓

PHI

.000 -.6434 -.6572  
40.000 -.5356 -.3787

ALPHA ( 3 ) = 3.924 BETA ( 2 ) = .189 MACH = 1.1013 Q = 601.26 P = 708.16 RN/L = 3.1838

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6320 -.6470  
40.000 -.4967 -.3784

ALPHA ( 3 ) = 3.921 BETA ( 3 ) = 4.251 MACH = 1.1013 Q = 601.26 P = 708.15 RN/L = 3.1838

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6400 -.6530  
40.000 -.4919 -.4006ORIGINAL PAGE IS  
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DATE 13 FEB 76      TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR      (XE8G20)  
ALPHA ( 4 ) = 7.863    BETA ( 1 ) = -3.864    MACH = 1.1008    Q = 600.53    P = 707.91    RN/L = 3.1857

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460  
PHI  
     .000    -.6082    -.6243  
     40.000    -.5261    -.3805  
ALPHA ( 4 ) = 7.865    BETA ( 2 ) = .180    MACH = 1.1008    Q = 600.53    P = 707.91    RN/L = 3.1857

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460  
PHI  
     .000    -.6065    -.6258  
     40.000    -.4896    -.5701  
ALPHA ( 4 ) = 7.863    BETA ( 3 ) = 4.247    MACH = 1.1008    Q = 600.53    P = 707.91    RN/L = 3.1857

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460  
PHI  
     .000    -.6112    -.6308  
     40.000    -.4819    -.3776  
ALPHA ( 5 ) = 11.903    BETA ( 1 ) = -3.846    MACH = 1.1003    Q = 600.53    P = 708.60    RN/L = 3.1882

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB    1.0160    1.0460  
PHI  
     .000    -.5839    -.5982  
     40.000    -.4859    -.3541  
ALPHA ( 5 ) = 11.911    BETA ( 2 ) = .188    MACH = 1.1003    Q = 600.53    P = 708.60    RN/L = 3.1882

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460  
PHI  
     .000    -.5761    -.5982  
     40.000    -.4641    -.3358

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8620)

ALPHA ( 5 ) = 11.905 BETA ( 3 ) = 4.263 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1882

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.5834 -.6080  
 40.000 -.5070 -.3447

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8621) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0800 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -3.849 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.579 -1.2801  
 40.000 -1.3742 -1.2803

ALPHA ( 1 ) = -4.030 BETA ( 2 ) = .192 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.787 -1.2921  
 40.000 -1.3375 -1.2439

ALPHA ( 1 ) = -4.042 BETA ( 3 ) = 4.289 MACH = .90000 Q = 600.22 P = 1058.5 RN/L = 3.5693

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
 .000 -4.638 -1.2948  
 40.000 -1.3317 -1.2038

ALPHA ( 2 ) = .024 BETA ( 1 ) = -3.875 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5682

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -4.776 -1.2974  
 40.000 -1.3882 -1.2957

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = -11.700 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8621)

ALPHA ( 2 ) = .031 BETA ( 2 ) = .186 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5682

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4811 -.2921  
40.000 -.3439 -.2290

ALPHA ( 2 ) = .021 BETA ( 3 ) = 4.265 MACH = .89917 Q = 599.08 P = 1058.5 RN/L = 3.5682

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4597 -.2878  
40.000 -.3207 -.1962

ALPHA ( 3 ) = 3.922 BETA ( 1 ) = -3.878 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5682

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4595 -.2824  
40.000 -.3781 -.2615

ALPHA ( 3 ) = 3.975 BETA ( 2 ) = .188 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5682

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4741 -.2819  
40.000 -.3654 -.2164

ALPHA ( 3 ) = 3.972 BETA ( 3 ) = 4.260 MACH = .89950 Q = 599.38 P = 1058.3 RN/L = 3.5682

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4833 -.2908  
40.000 -.3434 -.2073

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8021)

ALPHA ( 4 ) = 7.906 BETA ( 1 ) = -3.870 MACH = .89943 Q = 599.41 P = 1058.5 RN/L = 3.5684

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4750 -.2939  
40.000 -.3996 -.2399

ALPHA ( 4 ) = 8.017 BETA ( 2 ) = .186 MACH = .89943 Q = 599.41 P = 1058.5 RN/L = 3.5684

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4634 -.2922  
40.000 -.3615 -.2285

ALPHA ( 4 ) = 8.014 BETA ( 3 ) = 4.257 MACH = .89943 Q = 599.41 P = 1058.5 RN/L = 3.5684

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4851 -.3134  
40.000 -.3331 -.2008

ALPHA ( 5 ) = 11.899 BETA ( 1 ) = -3.861 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5441 -.3715  
40.000 -.4523 -.2657

ALPHA ( 5 ) = 11.956 BETA ( 2 ) = .190 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5792 -.3593  
40.000 -.4500 -.2286

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8621)

ALPHA ( 5 ) = 11.948 BETA ( 3 ) = 4.274 MACH = .90017 Q = 600.39 P = 1058.5 RN/L = 3.5727

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000  
40.000

-.5860  
-.3710

-.3907  
-.2309

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

1XEBG22 ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R OFS BODY FLAP LWR

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.045 BETA ( 1 ) = -7.856 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3451 -.2411  
40.000 -.3101 -.2812

ALPHA ( 1 ) = -3.970 BETA ( 2 ) = -3.843 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3409 -.2327  
40.000 -.2649 -.2176

ALPHA ( 1 ) = -3.957 BETA ( 3 ) = .189 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3455 -.2265  
40.000 -.2647 -.1938

ALPHA ( 1 ) = -3.965 BETA ( 4 ) = 4.271 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3459 -.2295  
40.000 -.2506 -.1677

PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
BOFLAP = -11.700 L-ELVN = .000  
R-ELVN = .000 MACH = .600



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LAR (XE8022)

ALPHA ( 1 ) = -4.005 BETA ( 5 ) = 8.350 MACH = .59680 Q = 594.79 P = 2385.6 RN/L = 4.8530

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3414 -.2352  
40.000 -.2338 -.1509

ALPHA ( 2 ) = -.025 BETA ( 1 ) = -7.896 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8558

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3519 -.2416  
40.000 -.2966 -.2554

ALPHA ( 2 ) = -.014 BETA ( 2 ) = -3.863 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8558

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3422 -.2253  
40.000 -.2507 -.2078

ALPHA ( 2 ) = .070 BETA ( 3 ) = .189 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8558

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3451 -.2224  
40.000 -.2570 -.1787

ALPHA ( 2 ) = .053 BETA ( 4 ) = 4.250 MACH = .59678 Q = 594.66 P = 2385.3 RN/L = 4.8558

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3500 -.2313  
40.000 -.2484 -.1716

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/9/C/R ORB BODY FLAP LWR

(XEBG22)

ALPHA ( 2 ) = .058 BETA ( 5 ) = 8.310 MACH = .59678 Q = 594.66 P = 2395.3 RN/L = 4.8568

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3461 -.2382  
40.000 -.2294 -.1544

ALPHA ( 3 ) = 3.933 BETA ( 1 ) = -7.911 MACH = .59760 Q = 596.20 P = 2395.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3553 -.2399  
40.000 -.2835 -.2357

ALPHA ( 3 ) = 3.936 BETA ( 2 ) = -3.366 MACH = .59760 Q = 596.20 P = 2395.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3519 -.2253  
40.000 -.2570 -.2002

ALPHA ( 3 ) = 3.935 BETA ( 3 ) = .172 MACH = .59760 Q = 596.20 P = 2395.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3489 -.2187  
40.000 -.2578 -.1749

ALPHA ( 3 ) = 4.026 BETA ( 4 ) = 4.240 MACH = .59760 Q = 596.20 P = 2395.0 RN/L = 4.8680

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3497 -.2254  
40.000 -.2437 -.1610

\* \*

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TABULATED PRESSURE DATA - 0A146 ( AMES 11-073-1 )

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AMES 11-073(0A146) -140A/B/C/R ORB BODY FLAP LMR

(XE8622)

ALPHA ( 3 ) = 4.030 BETA ( 5 ) = 8.292 MACH = .59760 Q = 596.20 P = 2385.0 RN/L = 4.8690

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3441 -.2249  
40.000 -.2174 -.1440

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -7.896 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.2522 -.2361  
40.000 -.2671 -.2093

ALPHA ( 4 ) = 7.913 BETA ( 2 ) = -3.861 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3399 -.2142  
40.000 -.2452 -.1827

ALPHA ( 4 ) = 8.049 BETA ( 3 ) = .175 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3509 -.2165  
40.000 -.2578 -.1677

ALPHA ( 4 ) = 8.049 BETA ( 4 ) = 4.238 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3465 -.2185  
40.000 -.2347 -.1495

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G22)

ALPHA ( 4 ) = 8.046 BETA ( 5 ) = 8.297 MACH = .59758 Q = 596.20 P = 2385.1 RN/L = 4.8692

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3474 -.2294  
40.000 -.2036 -.1356

ALPHA ( 5 ) = 11.963 BETA ( 1 ) = -7.860 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3452 -.2193  
40.000 -.2481 -.1911

ALPHA ( 5 ) = 11.985 BETA ( 2 ) = -3.840 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3254 -.2047  
40.000 -.2376 -.1567

ALPHA ( 5 ) = 12.000 BETA ( 3 ) = .181 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3383 -.2112  
40.000 -.2363 -.1442

ALPHA ( 5 ) = 12.027 BETA ( 4 ) = 4.252 MACH = .59774 Q = 596.43 P = 2384.9 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.3403 -.2119  
40.000 -.2183 -.1349

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG22)

ALPHA ( 5 ) = 12.070 BETA ( 5 ) = 8.324 MACH = .59774 Q = 586.43 P = 2384.9 RV/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.3359 -0.2116  
40.000 -0.1867 -0.1229

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG23) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.856 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2640 -.2633  
 40.000 -.2900 -.2559

ALPHA ( 1 ) = -3.926 BETA ( 2 ) = .190 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2587 -.2676  
 40.000 -.2657 -.2396

ALPHA ( 1 ) = -3.986 BETA ( 3 ) = 4.279 MACH = 1.3924 Q = 598.36 P = 440.89 RN/L = 2.9021

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2610 -.2639  
 40.000 -.2558 -.2342

ALPHA ( 2 ) = .006 BETA ( 1 ) = -3.877, MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2067 -.2074  
 40.000 -.2345 -.2069

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.400

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8623)

ALPHA ( 2 ) = .011 BETA ( 2 ) = .183 MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1997 -.2121  
40.000 -.2281 -.2083

ALPHA ( 2 ) = .023 BETA ( 3 ) = 4.256 MACH = 1.3947 Q = 599.32 P = 440.18 RN/L = 2.9066

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1994 -.2096  
40.000 -.2056 -.2042

ALPHA ( 3 ) = 3.926 BETA ( 1 ) = -3.879 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1506 -.1563  
40.000 -.1680 -.1501

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = .183 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1501 -.1562  
40.000 -.1634 -.1662

ALPHA ( 3 ) = 3.971 BETA ( 3 ) = 4.247 MACH = 1.3946 Q = 599.62 P = 440.42 RN/L = 2.9033

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.1498 -.1607  
40.000 -.1629 -.1793

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8023)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.869 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1012 -.1143  
40.000 -.1090 -.1259

ALPHA ( 4 ) = 7.908 BETA ( 2 ) = .178 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0939 -.1097  
40.000 -.1202 -.1402

ALPHA ( 4 ) = 7.872 BETA ( 3 ) = 4.245 MACH = 1.3941 Q = 599.51 P = 440.65 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1047 -.1109  
40.000 -.1320 -.1542

ALPHA ( 5 ) = 11.931 BETA ( 1 ) = -3.857 MACH = 1.3942 Q = 599.92 P = 440.89 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0520 -.0748  
40.000 -.0924 -.1219

ALPHA ( 5 ) = 11.869 BETA ( 2 ) = .183 MACH = 1.3942 Q = 599.92 P = 440.89 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0483 -.0714  
40.000 -.0869 -.1330

64



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8023)

ALPHA ( 5 ) = 11.865 BETA ( 3 ) = 4.258 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9149

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0568 -.0787  
40.000 -.1029 -.1243

ALPHA ( 6 ) = 15.857 BETA ( 1 ) = -3.836 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0052 -.0262  
40.000 -.0854 -.1151

ALPHA ( 6 ) = 15.871 BETA ( 2 ) = .184 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0004 -.0275  
40.000 -.0589 -.0974

ALPHA ( 6 ) = 15.861 BETA ( 3 ) = 4.289 MACH = 1.3942 Q = 599.51 P = 440.65 RN/L = 2.9096

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .0010 -.0221  
40.000 -.0523 -.0854

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG24) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.982 BETA ( 1 ) = -3.844 MACH = 1.2469 Q = 599.78 P = 551.11 RNL = 3.0086

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.255 -3.236  
 40.000 -3.388 -2.746

ALPHA ( 1 ) = -3.977 BETA ( 2 ) = .190 MACH = 1.2469 Q = 599.78 P = 551.11 RNL = 3.0086

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.302 -3.352  
 40.000 -3.254 -2.646

ALPHA ( 1 ) = -3.980 BETA ( 3 ) = 4.277 MACH = 1.2469 Q = 599.78 P = 551.11 RNL = 3.0086

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -3.248 -3.196  
 40.000 -3.113 -2.735

ALPHA ( 2 ) = .039 BETA ( 1 ) = -3.875 MACH = 1.2468 Q = 599.96 P = 551.34 RNL = 3.0225

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -2.2512 -2.2612  
 40.000 -2.2581 -2.2236

## PARAMETRIC DATA

RUDDER = .000 SPOBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.250

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/8/C/R ORB BODY FLAP LMR

(XE8624)

ALPHA ( 2 ) = .042 BETA ( 2 ) = .180 MACH = 1.2468 Q = 599.96 P = 551.34 RN/L = 3.0225

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2570 -.2696  
40.000 -.2750 -.2309

ALPHA ( 2 ) = .044 BETA ( 3 ) = 4.251 MACH = 1.2468 Q = 599.96 P = 551.34 RN/L = 3.0225

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2630 -.2649  
40.000 -.2644 -.2416

ALPHA ( 3 ) = 3.504 BETA ( 1 ) = -3.872 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2070 -.2153  
40.000 -.1987 -.1752

ALPHA ( 3 ) = 3.905 BETA ( 2 ) = .182 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2029 -.2143  
40.000 -.2152 -.1974

ALPHA ( 3 ) = 3.915 BETA ( 3 ) = 4.245 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0117

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2049 -.2158  
40.000 -.2149 -.2115

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG24)

ALPHA ( 4 ) = 7.877 BETA ( 1 ) = -3.867 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1623 -.1778  
40.000 -.1599 -.1626

ALPHA ( 4 ) = 7.882 BETA ( 2 ) = .178 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1603 -.1776  
40.000 -.1686 -.1817

ALPHA ( 4 ) = 7.882 BETA ( 3 ) = 4.244 MACH = 1.2474 Q = 600.25 P = 551.11 RN/L = 3.0132

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1568 -.1751  
40.000 -.1827 -.1995

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.850 MACH = 1.2463 Q = 600.28 P = 552.05 RN/L = 3.0150

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1256 -.1437  
40.000 -.1404 -.1613

ALPHA ( 5 ) = 11.928 BETA ( 2 ) = .186 MACH = 1.2463 Q = 600.28 P = 552.05 RN/L = 3.0150

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.1035 -.1392  
40.000 -.1456 -.1797

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG24)

ALPHA ( 5 ) = 11.922 BETA ( 3 ) = 4.256 MACH = 1.2463 0 = 600.28 P = 552.05 RN/L = 3.0160

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-0.000 -0.1185 -0.1494  
+0.000 -0.1495 -0.1907

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG25) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.988 BETA ( 1 ) = -3.842 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4211 -.3317  
 40.000 -.2997 -.2818

ALPHA ( 1 ) = -3.982 BETA ( 2 ) = .191 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3934 -.3695  
 40.000 -.3045 -.2586

ALPHA ( 1 ) = -3.987 BETA ( 3 ) = 4.273 MACH = 1.0978 Q = 600.10 P = 711.43 RN/L = 3.1881

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3925 -.3137  
 40.000 -.3595 -.3042

ALPHA ( 2 ) = .056 BETA ( 1 ) = -3.867 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.3547 -.2884  
 40.000 -.2520 -.2245

## PARAMETRIC DATA

RUDDER = .000 SPDRK = .000  
 BOFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = 1.100

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB625)

ALPHA ( 2 ) = .058 BETA ( 2 ) = .181 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3457 -.3094  
40.000 -.2718 -.2424

ALPHA ( 2 ) = .056 BETA ( 3 ) = 4.249 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1813

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3379 -.2759  
40.000 -.3078 -.2655

ALPHA ( 3 ) = 3.948 BETA ( 11 ) = -3.871 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3215 -.2759  
40.000 -.2473 -.2232

ALPHA ( 3 ) = 3.948 BETA ( 2 ) = .177 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3058 -.2695  
40.000 -.2412 -.2186

ALPHA ( 3 ) = 3.950 BETA ( 3 ) = 4.239 MACH = 1.0978 Q = 599.38 P = 710.48 RN/L = 3.1840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3149 -.2592  
40.000 -.2689 -.2428

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB625)

ALPHA ( 4 ) = 7.932 BETA ( 1 ) = -3.857 MACH = 1.0985 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2724 -.2503  
40.000 -.2273 -.2090

ALPHA ( 4 ) = 7.938 BETA ( 2 ) = .185 MACH = 1.0985 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2592 -.2449  
40.000 -.2157 -.2062

ALPHA ( 4 ) = 7.937 BETA ( 3 ) = 4.238 MACH = 1.0985 Q = 599.84 P = 710.01 RN/L = 3.1812

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2736 -.2474  
40.000 -.2427 -.2360

ALPHA ( 5 ) = 11.970 BETA ( 1 ) = -3.843 MACH = 1.0981 Q = 599.46 P = 710.25 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2155 -.2059  
40.000 -.1788 -.1908

ALPHA ( 5 ) = 11.981 BETA ( 2 ) = .187 MACH = 1.0981 Q = 599.46 P = 710.25 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2171 -.2286  
40.000 -.2000 -.1907



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ALPHA ( 5 ) = 11.975    BETA ( 3 ) = 4.250    MACH = 1.0981    Q    = 599.46    P    = 710.25    RN/L    = 3.1917

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
-0.000    -.2402    -.2283  
40.000    -.2397    -.2383

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG26) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.986 BETA ( 1 ) = -3.845 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 -.0769 -.1466  
 40.000 -.1406 -.1487

ALPHA ( 1 ) = -3.977 BETA ( 2 ) = .190 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 -.0750 -.1469  
 40.000 -.1269 -.1569

ALPHA ( 1 ) = -3.985 BETA ( 3 ) = 4.276 MACH = .89940 Q = 599.79 P = 1059.2 RN/L = 3.5659

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 -.0770 -.1475  
 40.000 -.0941 -.1430

ALPHA ( 2 ) = .061 BETA ( 1 ) = -3.869 MACH = .89877 Q = 599.18 P = 1059.7 RN/L = 3.5651

## DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 -.0803 -.1501  
 40.000 -.1382 -.1559

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BOFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = .900

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G26)

ALPHA ( 2 ) = .067 BETA ( 2 ) = .174 MACH = .89877 Q = 599.18 P = 1059.7 RNL = 3.5651

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0677 -.1392  
40.000 -.1112 -.1352

ALPHA ( 2 ) = .063 BETA ( 3 ) = 4.252 MACH = .89877 Q = 599.18 P = 1059.7 RNL = 3.5651

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0754 -.1422  
40.000 -.0973 -.1441

ALPHA ( 3 ) = 3.954 BETA ( 1 ) = -3.877 MACH = .89787 Q = 598.42 P = 1060.5 RNL = 3.5652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0651 -.1382  
40.000 -.1337 -.1454

ALPHA ( 3 ) = 3.955 BETA ( 2 ) = .186 MACH = .89787 Q = 598.42 P = 1060.5 RNL = 3.5652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0626 -.1280  
40.000 -.1071 -.1276

ALPHA ( 3 ) = 3.963 BETA ( 3 ) = 4.243 MACH = .89787 Q = 598.42 P = 1060.5 RNL = 3.5652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0628 -.1326  
40.000 -.0883 -.1348

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG26)

ALPHA ( 4 ) = 7.926 BETA ( 1 ) = -3.870 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0465 -.1213  
40.000 -.1136 -.1267

ALPHA ( 4 ) = 7.938 BETA ( 2 ) = .179 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0420 -.1217  
40.000 -.0980 -.1198

ALPHA ( 4 ) = 7.933 BETA ( 3 ) = 4.243 MACH = .89930 Q = 600.20 P = 1060.2 RN/L = 3.5747

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 -.0492 -.1261  
40.000 -.0873 -.1263

ALPHA ( 5 ) = 11.953 BETA ( 1 ) = -3.854 MACH = .89857 Q = 599.22 P = 1060.2 RN/L = 3.5673

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0405 -.1200  
40.000 -.1101 -.1193

ALPHA ( 5 ) = 11.965 BETA ( 2 ) = .189 MACH = .89857 Q = 599.22 P = 1060.2 RN/L = 3.5673

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0527 -.1195  
40.000 -.0975 -.1268

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R DRB BODY FLAP LMR (XE8626)

ALPHA ( S ) = 11.949 BETA ( 3 ) = 4.257 MACH = .89857 Q = 599.22 P = 1050.2 RN/L = 3.5673

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0341 -.1218  
40.000 -.0619 -.1292

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG27) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.996 BETA ( 1 ) = -7.853 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1205 -.1748  
 40.000 -.1129 -.1447

ALPHA ( 1 ) = -3.969 BETA ( 2 ) = -3.841 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1139 -.1661  
 40.000 -.1144 -.1351

ALPHA ( 1 ) = -3.949 BETA ( 3 ) = .187 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1115 -.1649  
 40.000 -.1348 -.1537

ALPHA ( 1 ) = -3.957 BETA ( 4 ) = 4.268 MACH = .59658 Q = 594.56 P = 2386.3 RN/L = 4.8484

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1174 -.1634  
 40.000 -.1172 -.1527

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = .000  
 BDFLAP = .000 L-ELVN = .000  
 R-ELVN = .000 MACH = .600

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8027)

ALPHA ( 1 ) = -3.972 BETA ( 5 ) = 8.340 MACH = .59538 Q = 594.21 P = 2386.3 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1169 -.1620  
40.000 -.1146 -.1501

ALPHA ( 2 ) = .056 BETA ( 1 ) = -7.886 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1092 -.1695  
40.000 -.1054 -.1266

ALPHA ( 2 ) = .065 BETA ( 2 ) = -3.860 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1083 -.1630  
40.000 -.1104 -.1297

ALPHA ( 2 ) = .070 BETA ( 3 ) = .184 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1101 -.1576  
40.000 -.1213 -.1405

ALPHA ( 2 ) = .066 BETA ( 4 ) = 4.247 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1056 -.1616  
40.000 -.1158 -.1464

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8627)

ALPHA ( 2 ) = .060 BETA ( 5 ) = 8.305 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1103 -.1596  
40.000 -.1061 -.1525

ALPHA ( 3 ) = 3.957 BETA ( 1 ) = -7.887 MACH = .59608 Q = 593.49 P = 2386.0 RN/L = 4.8432

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1019 -.1622  
40.000 -.1022 -.1268

ALPHA ( 3 ) = 3.961 BETA ( 2 ) = -3.863 MACH = .59608 Q = 593.49 P = 2386.0 RN/L = 4.8432

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1027 -.1565  
40.000 -.1044 -.1242

ALPHA ( 3 ) = 3.981 BETA ( 3 ) = .188 MACH = .59608 Q = 593.49 P = 2386.0 RN/L = 4.8432

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0961 -.1509  
40.000 -.1039 -.1246

ALPHA ( 3 ) = 3.978 BETA ( 4 ) = 4.237 MACH = .59608 Q = 593.49 P = 2386.0 RN/L = 4.8432

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.1009 -.1526  
40.000 -.1086 -.1397



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR (XE8G27)

ALPHA ( 3 ) = 3.980 BETA ( 5 ) = 8.292 MACH = .59508 Q = 593.49 P = 2386.0 RN/L = 4.8432

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0981 -.1545  
40.000 -.0979 -.1455

ALPHA ( 4 ) = 7.936 BETA ( 1 ) = -7.885 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0896 -.1534  
40.000 -.0872 -.1192

ALPHA ( 4 ) = 7.944 BETA ( 2 ) = -3.857 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0891 -.1460  
40.000 -.0896 -.1125

ALPHA ( 4 ) = 8.045 BETA ( 3 ) = .182 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0870 -.1419  
40.000 -.0977 -.1229

ALPHA ( 4 ) = 8.043 BETA ( 4 ) = 4.239 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.0856 -.1422  
40.000 -.0921 -.1291

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8627)

ALPHA ( 4 ) = 8.041 BETA ( 5 ) = 3.297 MACH = .59590 Q = 593.13 P = 2386.0 RN/L = 4.8429

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0876 -.1452  
40.000 -.0864 -.1362

ALPHA ( 5 ) = 11.909 BETA ( 1 ) = -7.850 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0712 -.1410  
40.000 -.0743 -.1113

ALPHA ( 5 ) = 11.929 BETA ( 2 ) = -3.836 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0703 -.1413  
40.000 -.0805 -.1136

ALPHA ( 5 ) = 11.930 BETA ( 3 ) = .181 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0698 -.1297  
40.000 -.0769 -.1133

ALPHA ( 5 ) = 11.930 BETA ( 4 ) = 4.251 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8458

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.0670 -.1411  
40.000 -.0755 -.1136

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG27)

ALPHA ( 5 ) = 11.920 BETA ( 5 ) = 8.317 MACH = .59646 0 = 594.33 P = 2386.5 RN/L = 4.8458

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.0702 -.1293  
40.000 -.0732 -.1236

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB028) ( 05 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = -10.000 SPDBRK = 35.000  
 BOFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = 1.400

ALPHA ( 1 ) = -3.978 BETA ( 1 ) = -3.855 MACH = 1.3927 Q = 599.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2079 .2089  
 40.000 .1397 .0977

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = .185 MACH = 1.3927 Q = 599.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1911 .2086  
 40.000 .1277 .0714

ALPHA ( 1 ) = -3.978 BETA ( 3 ) = 4.270 MACH = 1.3927 Q = 599.58 P = 441.59 RN/L = 2.9214

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1828 .1949  
 40.000 .1611 .1026

ALPHA ( 2 ) = -.069 BETA ( 1 ) = -3.876 MACH = 1.3934 Q = 500.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2545 .2674  
 40.000 .2421 .1863

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5895

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8628)

ALPHA ( 2 ) = -.045 BETA ( 2 ) = .182 MACH = 1.3934 Q = 600.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2571 .2542  
40.000 .2096 .1432

ALPHA ( 2 ) = -.049 BETA ( 3 ) = 4.247 MACH = 1.3934 Q = 600.11 P = 441.59 RN/L = 2.9212

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2460 .2413  
40.000 .2120 .1476

ALPHA ( 3 ) = 3.888 BETA ( 1 ) = -3.879 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3535 .3340  
40.000 .3574 .2596

ALPHA ( 3 ) = 3.892 BETA ( 2 ) = .179 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3499 .3250  
40.000 .3123 .2245

ALPHA ( 3 ) = 3.895 BETA ( 3 ) = 4.241 MACH = 1.3920 Q = 599.57 P = 442.06 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3410 .3297  
40.000 .2947 .2105

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PALE 5896

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG28)

ALPHA ( 4 ) = 7.940 BETA ( 1 ) = -3.870 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4710 .4202  
40.000 .4537 .3118

ALPHA ( 4 ) = 7.946 BETA ( 2 ) = .176 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4585 .4055  
40.000 .4093 .2872

ALPHA ( 4 ) = 7.949 BETA ( 3 ) = 4.238 MACH = 1.3916 Q = 599.57 P = 442.30 RN/L = 2.9184

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4547 .4144  
40.000 .3808 .2668

ALPHA ( 5 ) = 11.863 BETA ( 1 ) = -3.856 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5806 .4795  
40.000 .5083 .3399

ALPHA ( 5 ) = 11.873 BETA ( 2 ) = .179 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5750 .4782  
40.000 .5716 .3354

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5897

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8628)

ALPHA ( 5 ) = 11.870 BETA ( 3 ) = 4.256 MACH = 1.3913 Q = 599.66 P = 442.53 RN/L = 2.9180

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5693 .4875  
40.000 .4553 .3231

ALPHA ( 6 ) = 15.854 BETA ( 1 ) = 3.831 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6721 .5286  
40.000 .5398 .3547

ALPHA ( 5 ) = 15.868 BETA ( 2 ) = .178 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5779 .5359  
40.000 .5326 .3598

ALPHA ( 6 ) = 15.859 BETA ( 3 ) = 4.283 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9206

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6702 .5448  
40.000 .5211 .3680ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5898

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8629) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.986 BETA ( 1 ) = -3.845 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0225

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2307 .1957  
 40.000 .1536 .0881

ALPHA ( 1 ) = -3.967 BETA ( 2 ) = .186 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0225

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2259 .2129  
 40.000 .1144 .0585

ALPHA ( 1 ) = -3.974 BETA ( 3 ) = 4.269 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0225

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2131 .1946  
 40.000 .1653 .0928

ALPHA ( 2 ) = -.035 BETA ( 1 ) = -3.871 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2765 .2418  
 40.000 .2770 .1856

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = 1.250



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5899

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G29)

ALPHA ( 2 ) = -.027 BETA ( 2 ) = .182 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2947 .2557  
40.000 .2222 .1385

ALPHA ( 2 ) = -.032 BETA ( 3 ) = 4.246 MACH = 1.2459 Q = 599.80 P = 552.04 RN/L = 3.0192

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2717 .2379  
40.000 .2247 .1292

ALPHA ( 3 ) = 3.922 BETA ( 1 ) = -3.869 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3903 .3206  
40.000 .3943 .2358

ALPHA ( 3 ) = 3.922 BETA ( 2 ) = .180 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3957 .3159  
40.000 .3334 .2062

ALPHA ( 3 ) = 3.925 BETA ( 3 ) = 4.237 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0214

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3835 .3178  
40.000 .3074 .1853

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5900

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8629)

ALPHA ( 4 ) = 7.990 BETA ( 1 ) = -3.870 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4971 .3830  
40.000 .4695 .2712

ALPHA ( 4 ) = 7.994 BETA ( 2 ) = .176 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4975 .3804  
40.000 .4190 .2532

ALPHA ( 4 ) = 7.996 BETA ( 3 ) = 4.240 MACH = 1.2446 Q = 599.59 P = 552.98 RN/L = 3.0205

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4977 .3867  
40.000 .3878 .2354

ALPHA ( 5 ) = 11.923 BETA ( 1 ) = -3.851 MACH = 1.2447 Q = 599.71 P = 552.98 RN/L = 3.0237

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5855 .4232  
40.000 .5162 .2973

ALPHA ( 5 ) = 11.934 BETA ( 2 ) = .177 MACH = 1.2447 Q = 599.71 P = 552.98 RN/L = 3.0237

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5823 .4231  
40.000 .4673 .2780

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5901

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LHR

(XEB029)

ALPHA ( 5 ) = 11.927    BETA ( 3 ) = 4.253    MACH = 1.2447    Q = 599.71    P = 552.98    RN/L = 3.0237

SECTION : 1) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    .5857    .4292  
40.000    .4490    .2568

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5902

AMES 11-073(0A148) -140A/B/C/R ORS BODY FLAP LWR

(XE8330) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.994 BETA ( 1 ) = -3.852 MACH = 1.0997 Q = 500.21 P = 709.06 RN/L = 3.1908

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0430

PHI  
 .000 .2817 .1999  
 40.000 .2011 .1185

ALPHA ( 1 ) = -3.985 BETA ( 2 ) = .190 MACH = 1.0997 Q = 600.21 P = 709.06 RN/L = 3.1908

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3038 .2302  
 40.000 .1732 .0985

ALPHA ( 1 ) = -3.992 BETA ( 3 ) = 4.268 MACH = 1.0997 Q = 600.21 P = 709.06 RN/L = 3.1908

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2761 .2095  
 40.000 .2057 .0961

ALPHA ( 2 ) = -.020 BETA ( 1 ) = -3.866 MACH = 1.0986 Q = 599.48 P = 709.54 RN/L = 3.1886

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3124 .2179  
 40.000 .3333 .1632

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5903

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB030)

ALPHA ( 2 ) = -.014 BETA ( 2 ) = .187 MACH = 1.0986 Q = 599.48 P = 709.54 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3616 .2403  
40.000 .2690 .1299

ALPHA ( 2 ) = -.017 BETA ( 3 ) = 4.244 MACH = 1.0986 Q = 599.48 P = 709.54 RN/L = 3.1886

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3226 .2343  
40.000 .2520 .1124

ALPHA ( 3 ) = 3.958 BETA ( 1 ) = -3.869 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4083 .2676  
40.000 .4355 .1825

ALPHA ( 3 ) = 3.959 BETA ( 2 ) = .177 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4262 .2811  
40.000 .3568 .1701

ALPHA ( 3 ) = 3.960 BETA ( 3 ) = 4.234 MACH = 1.1006 Q = 600.44 P = 708.14 RN/L = 3.1894

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4127 .2802  
40.000 .3147 .1428

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5904

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8630)

ALPHA ( 4 ) = 8.035 BETA ( 1 ) = -3.862 MACH = 1.0985 Q = 599.52 P = 709.77 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4939 .3099  
40.000 .4453 .1994

ALPHA ( 4 ) = 8.041 BETA ( 2 ) = .181 MACH = 1.0985 Q = 599.52 P = 709.77 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5030 .3122  
40.000 .4178 .1863

ALPHA ( 4 ) = 8.040 BETA ( 3 ) = 4.238 MACH = 1.0985 Q = 599.52 P = 709.77 RN/L = 3.1893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5005 .3156  
40.000 .3800 .1671

ALPHA ( 5 ) = 11.975 BETA ( 1 ) = -3.843 MACH = 1.0970 Q = 599.10 P = 711.19 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5571 .3355  
40.000 .4762 .2070

ALPHA ( 5 ) = 11.985 BETA ( 2 ) = .181 MACH = 1.0970 Q = 599.10 P = 711.19 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5621 .3412  
40.000 .4523 .1981

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5905

(XE8630)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 5 ) = 11.977 BETA ( 3 ) = 4.250 MACH = 1.0970 Q = 599.10 P = 711.19 RN/L = 3.1892

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5626 .3384  
40.000 .4155 .1766

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5906

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8631) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8300 IN. YMRP = .0000 IN. YO  
 BREF = 936.0080 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.977 BETA ( 1 ) = -3.852 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3010 .1081  
 40.000 .2314 .0556

ALPHA ( 1 ) = -3.975 BETA ( 2 ) = .187 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3340 .1213  
 40.000 .1962 .0325

ALPHA ( 1 ) = -3.985 BETA ( 3 ) = 4.269 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5777

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3069 .1030  
 40.000 .2206 .0175

ALPHA ( 2 ) = -.002 BETA ( 1 ) = -3.870 MACH = .89780 Q = 596.63 P = 1060.9 RN/L = 3.5706

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3119 .1139  
 40.000 .2855 .0720

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = .900



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5907

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE6G31)

ALPHA ( 2 ) = .000 BETA ( 2 ) = .184 MACH = .89780 Q = 598.63 P = 1050.9 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3279 .1110  
40.000 .2287 .0256

ALPHA ( 2 ) = -.010 BETA ( 3 ) = 4.247 MACH = .89780 Q = 598.63 P = 1050.9 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3079 .1067  
40.000 .2076 .0114

ALPHA ( 3 ) = 3.984 BETA ( 1 ) = -3.872 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3632 .1241  
40.000 .2993 .0639

ALPHA ( 3 ) = 3.983 BETA ( 2 ) = .184 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3577 .1243  
40.000 .2644 .0401

ALPHA ( 3 ) = 3.979 BETA ( 3 ) = 4.243 MACH = .89870 Q = 599.00 P = 1059.5 RN/L = 3.5709

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3653 .1251  
40.000 .2423 .0205

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A14S ( AMES 11-073-1 )

PAGE 5908

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8631)

ALPHA ( 4 ) = 8.057 BETA ( 1 ) = -3.860 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3959 .1346  
40.000 .3157 .0567

ALPHA ( 4 ) = 8.064 BETA ( 2 ) = .187 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3975 .1320  
40.000 .2889 .0383

ALPHA ( 4 ) = 8.059 BETA ( 3 ) = 4.245 MACH = .89807 Q = 598.57 P = 1060.2 RN/L = 3.5677

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4072 .1413  
40.000 .2753 .0356

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.854 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4209 .1395  
40.000 .3141 .0499

ALPHA ( 5 ) = 11.990 BETA ( 2 ) = .184 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4216 .1373  
40.000 .2954 .0238

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-0-3-1 )

PAGE 5909

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE863:)

ALPHA ( 5 ) = 11.975 BETA ( 3 ) = 4.259 MACH = .89717 Q = 598.01 P = 1061.4 RN/L = 3.5714

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4272 .1436  
40.000 .2793 .0136

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5910

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB632) ( 05 AUG 75 )

## REFERENCE DATA

## PARAMETRIC DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

RUDDER = -10.000 SPOBRK = 35.000  
 BOFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = .000 MACH = .600

ALPHA ( 1 ) = -4.052 BETA ( 1 ) = -7.850 MACH = .59684 Q = 594.68 P = 2386.3 RN/L = 4.8170

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2899 -.0037  
 40.000 .1853 .0173

ALPHA ( 1 ) = -4.036 BETA ( 2 ) = -3.835 MACH = .59684 Q = 594.68 P = 2386.3 RN/L = 4.8170

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2355 -.0040  
 40.000 .1856 -.0041

ALPHA ( 1 ) = -4.020 BETA ( 3 ) = .192 MACH = .59684 Q = 594.68 P = 2386.3 RN/L = 4.8170

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2637 .0258  
 40.000 .1810 -.0355

ALPHA ( 1 ) = -4.028 BETA ( 4 ) = 4.273 MACH = .59684 Q = 594.68 P = 2386.3 RN/L = 4.8170

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2491 .0269  
 40.000 .1643 -.0477

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5911

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8632)

ALPHA ( 1 ) = -4.045 BETA ( 5 ) = 8.346 MACH = .59622 Q = 594.68 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2377 .0163  
40.000 .1431 -.0630

ALPHA ( 2 ) = .034 BETA ( 1 ) = -7.883 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2687 .0137  
40.000 .1925 .0364

ALPHA ( 2 ) = .043 BETA ( 2 ) = -3.857 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2567 .0150  
40.000 .1928 .0017

ALPHA ( 2 ) = .045 BETA ( 3 ) = .186 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2588 .0250  
40.000 .1735 -.0426

ALPHA ( 2 ) = .041 BETA ( 4 ) = 4.251 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2612 .0209  
40.000 .1547 -.0523ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5912

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8632)

ALPHA ( 2 ) = .035 BETA ( 5 ) = 8.312 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8132

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2733 .0297  
40.000 .1473 -.0552

ALPHA ( 3 ) = 4.014 BETA ( 1 ) = -7.879 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2892 .0275  
40.000 .2166 .0313

ALPHA ( 3 ) = 4.016 BETA ( 2 ) = -3.855 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2778 .0312  
40.000 .2071 -.0085

ALPHA ( 3 ) = 4.015 BETA ( 3 ) = .196 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2793 .0241  
40.000 .1849 -.0332

ALPHA ( 3 ) = 4.015 BETA ( 4 ) = 4.243 MACH = .59602 Q = 593.50 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2849 .0272  
40.000 .1775 -.0381

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5913

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8632)

ALPHA ( 3 ) = 4.018 BETA ( 5 ) = 8.295 MACH = .59602 Q = 594.21 P = 2386.4 RN/L = 4.8147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2964 .0426  
40.000 .1704 -.0439

ALPHA ( 4 ) = 8.080 BETA ( 1 ) = -7.877 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3100 .0338  
40.000 .2272 .0236

ALPHA ( 4 ) = 8.089 BETA ( 2 ) = -3.848 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 .3101 .0387  
40.000 .2243 -.0374

ALPHA ( 4 ) = 8.087 BETA ( 3 ) = .188 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3027 .0371  
40.000 .2101 -.0199

ALPHA ( 4 ) = 8.086 BETA ( 4 ) = 4.243 MACH = .59636 Q = 594.21 P = 2386.7 RN/L = 4.8181

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3143 .0442  
40.000 .1969 -.0279

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5914

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8632)

ALPHA ( 4 ) = 8.082 BETA ( 5 ) = 8.301 MACH = .59636 Q = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3144 .0454  
40.000 .1835 -.0470

ALPHA ( 5 ) = 12.017 BETA ( 1 ) = -7.830 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3263 .0457  
40.000 .2372 .0275

ALPHA ( 5 ) = 12.037 BETA ( 2 ) = -3.825 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3299 .0487  
40.000 .2378 .0035

ALPHA ( 5 ) = 12.038 BETA ( 3 ) = .185 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3344 .0511  
40.000 .2294 -.0039

ALPHA ( 5 ) = 12.033 BETA ( 4 ) = 4.256 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3366 .0545  
40.000 .2173 -.0235



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5915

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG32)

ALPHA ( 5 ) = 12.024

BETA ( 5 ) =

8.318

MACH =

.59626

0

= 593.97

P

= 2386.7

RN/L

= 4.8175

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.3352 .0615

.40.000 .1950 -.0296

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5916

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB033) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT.  
 LREF = 474.8000 IN.  
 BREF = 936.0580 IN.  
 SCALE = .0300

XMRP = 1076.6800 IN. XO  
 YMRP = .0000 IN. YO  
 ZMRP = 375.0000 IN. ZO

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = 10.000 MACH = 1.400

ALPHA ( 1 ) = -4.110 BETA ( 1 ) = -3.848 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1930 .2053  
 40.000 .0454 .0316

ALPHA ( 1 ) = -4.105 BETA ( 2 ) = .195 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1914 .2053  
 40.000 .1075 .0566

ALPHA ( 1 ) = -4.114 BETA ( 3 ) = 4.277 MACH = 1.3952 Q = 599.12 P = 439.71 RN/L = 2.9043

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2091 .1939  
 40.000 .0362 .0772

ALPHA ( 2 ) = -.049 BETA ( 1 ) = -3.866 MACH = 1.3944 Q = 599.11 P = 440.18 RN/L = 2.9098

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2457 .2445  
 40.000 .1467 .0937

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8633)

ALPHA ( 2 ) = -.046    BETA ( 2 ) = .181    MACH = 1.3944    Q = 599.11    P = 440.18    RN/L = 2.9098

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    .2593    .2548  
40.000    .1453    .1052

ALPHA ( 2 ) = -.050    BETA ( 3 ) = 4.256    MACH = 1.3944    Q = 599.11    P = 440.18    RN/L = 2.9098

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    .2509    .2409  
40.000    .1445    .1066

ALPHA ( 3 ) = 3.895    BETA ( 1 ) = -3.869    MACH = 1.3948    Q = 599.42    P = 440.18    RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    .3447    .3291  
40.000    .2438    .1769

ALPHA ( 3 ) = 3.895    BETA ( 2 ) = .190    MACH = 1.3948    Q = 599.42    P = 440.18    RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    .3523    .3289  
40.000    .2310    .1690

ALPHA ( 3 ) = 3.895    BETA ( 3 ) = 4.246    MACH = 1.3948    Q = 599.42    P = 440.18    RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI  
.000    .3585    .3379  
40.000    .2162    .1791

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8633)

ALPHA ( 4 ) = 7.947 BETA ( 1 ) = -3.865 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9146

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4531 .4135  
40.000 .3335 .2526

ALPHA ( 4 ) = 7.946 BETA ( 2 ) = .185 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9146

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4575 .4019  
40.000 .3175 .2555

ALPHA ( 4 ) = 7.944 BETA ( 3 ) = 4.238 MACH = 1.3944 Q = 599.72 P = 440.65 RN/L = 2.9146

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4705 .4165  
40.000 .3109 .2611

ALPHA ( 5 ) = 11.859 BETA ( 1 ) = -3.851 MACH = 1.3955 Q = 599.73 P = 439.94 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5668 .4821  
40.000 .4136 .3080

ALPHA ( 5 ) = 11.865 BETA ( 2 ) = .189 MACH = 1.3955 Q = 599.73 P = 439.94 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5574 .4722  
40.000 .4073 .3204

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5919

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G33)

ALPHA ( 5 ) = 11.860 BETA ( 3 ) = 4.253 MACH = 1.3955 Q = 599.73 P = 439.94 RN/L = 2.9121

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5712 .4755  
40.000 .4045 .3343

ALPHA ( 6 ) = 15.849 BETA ( 1 ) = -3.830 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6701 .5385  
40.000 .4912 .3697

ALPHA ( 6 ) = 15.859 BETA ( 2 ) = .186 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6579 .5315  
40.000 .4982 .3850

ALPHA ( 6 ) = 15.851 BETA ( 3 ) = 4.283 MACH = 1.3950 Q = 599.93 P = 440.41 RN/L = 2.9147

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6709 .5326  
40.000 .5017 .3924

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5920

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG34) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.064 BETA ( 1 ) = -3.845 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2245 .2054  
40.000 .0381 .0190

ALPHA ( 1 ) = -4.041 BETA ( 2 ) = .192 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2243 .2161  
40.000 .0372 .0491

ALPHA ( 1 ) = -4.051 BETA ( 3 ) = 4.275 MACH = 1.2480 Q = 600.05 P = 550.40 RN/L = 3.0174

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2302 .1892  
40.000 .0655 .0629

ALPHA ( 2 ) = -.032 BETA ( 1 ) = -3.867 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2912 .2400  
40.000 .1531 .1381

## PARAMETRIC DATA

RUDDER = 10.000 SPD8RK = 35.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = 10.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5921

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8034)

ALPHA ( 2 ) = -.029 BETA ( 2 ) = .184 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.3013 .2552
40.000	.1384 .0997

ALPHA ( 2 ) = -.035 BETA ( 3 ) = 4.251 MACH = 1.2476 Q = 600.19 P = 550.87 RN/L = 3.0137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.2751 .2409
40.000	.1511 .1005

ALPHA ( 3 ) = 3.925 BETA ( 1 ) = -3.871 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.3852 .3189
40.000	.2540 .1938

ALPHA ( 3 ) = 3.924 BETA ( 2 ) = .180 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.3930 .3164
40.000	.2298 .1628

ALPHA ( 3 ) = 3.934 BETA ( 3 ) = 4.244 MACH = 1.2463 Q = 599.48 P = 551.33 RN/L = 3.0145

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.3991 .3210
40.000	.2335 .1622

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A:48 ( AMES 11-073-1 )

PAGE 5922

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8634)

ALPHA ( 4 ) = 7.989 BETA ( 1 ) = -3.866 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4935 .3807  
40.000 .3304 .2321

ALPHA ( 4 ) = 7.987 BETA ( 2 ) = .186 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4932 .3769  
40.000 .3311 .2295

ALPHA ( 4 ) = 7.988 BETA ( 3 ) = 4.237 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0135

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4914 .3845  
40.000 .3333 .2269

ALPHA ( 5 ) = 11.921 BETA ( 1 ) = -3.850 MACH = 1.2455 Q = 599.75 P = 552.28 RN/L = 3.0144

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5849 .4315  
40.000 .4073 .2787

ALPHA ( 5 ) = 11.932 BETA ( 2 ) = .189 MACH = 1.2455 Q = 599.75 P = 552.28 RN/L = 3.0144

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5798 .4248  
40.000 .4194 .2710



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5823

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LAR

(XE8634)

ALPHA ( 5 ) = 11.924 BETA ( 3 ) = 4.253 MACH = 1.2455 Q = 599.75 P = 552.28 RW/L = 3.0144

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5775 .4249  
40.000 .4140 .2702

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5924

AMES 11-073(0A148) -140A/B/C/R OR3 BODY FLAP LWR

(XEBG35) ( 05 AUG 75 )

## REFERENCE DATA

SPRF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0590 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0320

ALPHA ( 1 ) = -4.064 BETA ( 1 ) = -3.846 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2916 .2184  
 40.000 .0725 .0824

ALPHA ( 2 ) = -4.062 BETA ( 2 ) = .195 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2984 .2303  
 40.000 .1222 .1004

ALPHA ( 3 ) = -4.062 BETA ( 3 ) = 4.274 MACH = 1.1012 Q = 599.90 P = 706.74 RN/L = 3.1771

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2548 .1915  
 40.000 .1173 .0843

ALPHA ( 2 ) = -.023 BETA ( 1 ) = -3.863 MACH = 1.0993 Q = 599.08 P = 708.12 RN/L = 3.1793

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3277 .2319  
 40.000 .2381 .1400

## PARAMETRIC DATA

RUDDER = 10.000 SPDRX = 35.000  
 BDFLAP = 15.300 L-ELVN = 1.000  
 R-ELVN = 10.000 MACH = 1.1000

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**(57:983X)**

DEPENDENT VAS: ABU;

1.0180 1.0460

.3612	.2479
.2025	.1328

PN/L - 3.1793

DEPENDENT VARIABLE CP

08101 1.0450

.3095	.2192
.1910	.0920

**PN/L = 3.1795**

DEPENDENT VARIABLE CP

1.0180 1.0460

.4107	.2744
.2789	.1655

**PN/L = 3.1785**

DEPENDENT VARIABLE CP

1.0183 1.0460

4204	2743
2755	1429

**PN/i = 3.1785**

DEPENDENT VARIABLE: CP

1 0190 1 0450

4043  
2530

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5926

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEB035)

ALPHA ( 4 ) = 8.030 BETA ( 1 ) = -3.862 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4955 .3097  
40.000 .3441 .1735

ALPHA ( 4 ) = 8.038 BETA ( 2 ) = .183 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4995 .3109  
40.000 .3415 .1617

ALPHA ( 4 ) = 8.037 BETA ( 3 ) = 4.237 MACH = 1.0987 Q = 598.57 P = 708.35 RN/L = 3.1769

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4925 .3049  
40.000 .3250 .1442

ALPHA ( 5 ) = 11.975 BETA ( 1 ) = -3.842 MACH = 1.0987 Q = 599.75 P = 708.59 RN/L = 3.1753

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5594 .3374  
40.000 .4058 .1883

ALPHA ( 5 ) = 11.986 BETA ( 2 ) = .188 MACH = 1.0987 Q = 598.75 P = 708.59 RN/L = 3.1753

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5624 .3381  
40.000 .4009 .1919

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5927

(XEBG35)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 5 ) = 11.981 BETA ( 3 ) = 4.246 MACH = 1.0987 0 = 598.75 P = 708.59 RN/L = 3.1753

SECTION 1 11 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5572 .3337

40.000 .3763 .1641

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5928

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8036) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
LREF = 474.3000 IN. YMRP = .0000 IN. Y0  
BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
SCALE = .0300

ALPHA ( 1 ) = -4.063 BETA ( 1 ) = -3.844 MACH = .90163 Q = 601.33 P = 1056.6 RN/L = 3.5806

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3192 .1056  
40.000 .1588 .0151

ALPHA ( 1 ) = -4.055 BETA ( 2 ) = .194 MACH = .90163 Q = 601.33 P = 1056.6 RN/L = 3.5806

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3340 .1220  
40.000 .1702 .0307

ALPHA ( 1 ) = -4.060 BETA ( 3 ) = 4.272 MACH = .90163 Q = 601.33 P = 1056.6 RN/L = 3.5806

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2915 .1074  
40.000 .1943 .0111

ALPHA ( 2 ) = .042 BETA ( 1 ) = -3.866 MACH = .9027 Q = 600.16 P = 1057.8 RN/L = 3.5774

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3048 .1053  
40.000 .2001 .0391

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 35.000  
BDFLAP = 16.300 L-ELVN = .000  
R-ELVN = 10.000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5929

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8636)

ALPHA ( 2 ) = .092 BETA ( 2 ) = .183 MACH = .90027 Q = 600.16 P = 1057.8 RN/L = 3.5774

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3284 .1111  
40.000 .1968 .0268

ALPHA ( 2 ) = .085 BETA ( 3 ) = 4.248 MACH = .90027 Q = 600.16 P = 1057.8 RN/L = 3.5774

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3134 .1085  
40.000 .1866 .0018

ALPHA ( 3 ) = 3.973 BETA ( 1 ) = -3.873 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3563 .1233  
40.000 .2379 .0507

ALPHA ( 3 ) = 3.981 BETA ( 2 ) = .185 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3585 .1200  
40.000 .2253 .0313

ALPHA ( 3 ) = 3.986 BETA ( 3 ) = 4.242 MACH = .89927 Q = 599.24 P = 1058.5 RN/L = 3.5740

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3525 .1203  
40.000 .2342 .0065

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5930

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8638)

ALPHA ( 4 ) = 8.050 BETA ( 1 ) = -3.862 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3988 .1336  
40.000 .2676 .0542

ALPHA ( 4 ) = 8.064 BETA ( 2 ) = .184 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3957 .1309  
40.000 .2455 .0311

ALPHA ( 4 ) = 8.061 BETA ( 3 ) = 4.239 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5781

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3967 .1274  
40.000 .2270 .0090

ALPHA ( 5 ) = 11.931 BETA ( 1 ) = -3.854 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4257 .1401  
40.000 .2770 .0318

ALPHA ( 5 ) = 11.945 BETA ( 2 ) = .188 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4225 .1412  
40.000 .2623 .0150



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5931

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG36)

ALPHA ( 5 ) = 11.935 BETA ( 3 ) = 4.259 MACH = .89977 Q = 600.28 P = 1059.2 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4229 .1382  
40.000 .2456 .0016

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5932

AMES 11-073(0A148) - 14DA/B/C/R ORB BODY FLAP LMR

(XEBG37) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.041 BETA ( 1 ) = -7.846 MACH = .59694 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2346 .0112  
 40.000 .1540 -.0165

ALPHA ( 1 ) = -4.025 BETA ( 2 ) = -3.846 MACH = .59694 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2504 .0192  
 40.000 .1493 -.0328

ALPHA ( 1 ) = -3.896 BETA ( 3 ) = .184 MACH = .59694 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 .2601 .0244  
 40.000 .1293 -.0394

ALPHA ( 1 ) = -3.930 BETA ( 4 ) = 4.266 MACH = .59694 Q = 595.14 P = 2385.8 RN/L = 4.8726

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2332 .0060  
 40.000 .1300 -.0612

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 35.000  
 BDFLAP = 16.300 L-ELVN = .000  
 R-ELVN = 10.000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5933

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8037)

ALPHA ( 1 ) = -3.946 BETA ( 5 ) = 8.339 MACH = .59694 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2272 .0023  
40.000 .1048 -.0807

ALPHA ( 2 ) = .030 BETA ( 1 ) = -7.898 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2710 .0224  
40.000 .1832 -.0054

ALPHA ( 2 ) = .040 BETA ( 2 ) = -3.863 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2556 .0154  
40.000 .1734 -.0144

ALPHA ( 2 ) = .104 BETA ( 3 ) = .181 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2564 .0153  
40.000 .1483 -.0404

ALPHA ( 2 ) = .102 BETA ( 4 ) = 4.244 MACH = .59652 Q = 594.31 P = 2385.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2528 .0191  
40.000 .1248 -.0558

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5934

AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP LWR (XEBG377)

ALPHA ( 2 ) = .019 BETA ( 5 ) = 8.303 MACH = .59652 Q = 594.31 P = 2386.8 RN/L = 4.8794

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2603 .0200  
40.000 .1112 -.0722

ALPHA ( 3 ) = 4.036 BETA ( 1 ) = -7.909 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2950 .0267  
40.000 .1994 .0073

ALPHA ( 3 ) = 4.041 BETA ( 2 ) = -3.867 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2809 .0200  
40.000 .1922 -.0145

ALPHA ( 3 ) = 4.040 BETA ( 3 ) = .186 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2767 .0184  
40.000 .1699 -.0288

ALPHA ( 3 ) = 4.044 BETA ( 4 ) = 4.237 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2796 .0214  
40.000 .1441 -.0444

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5935

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEB037)

ALPHA ( 3 ) = 4.049 BETA ( 5 ) = 8.284 MACH = .59620 Q = 593.73 P = 2386.0 RN/L = 4.8840

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2879 .0251  
40.000 .1335 -.0572

ALPHA ( 4 ) = 7.972 BETA ( 1 ) = -7.894 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3139 .0359  
40.000 .2153 .0099

ALPHA ( 4 ) = 7.984 BETA ( 2 ) = -3.864 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3059 .0402  
40.000 .2022 -.0068

ALPHA ( 4 ) = 7.990 BETA ( 3 ) = .171 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3043 .0381  
40.000 .1880 -.0143

ALPHA ( 4 ) = 7.990 BETA ( 4 ) = 4.234 MACH = .59666 Q = 594.55 P = 2385.8 RN/L = 4.8889

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3084 .0377  
40.000 .1718 -.0247

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5936

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LWR

(XIE637)

ALPHA ( 4 ) = 7.989 BETA ( 5 ) = 8.289 MACH = .59656 Q = 594.55 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3330 .0315  
40.000 .1530 -.0508

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -7.860 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3333 .0553  
40.000 .2214 .0002

ALPHA ( 5 ) = 11.991 BETA ( 2 ) = -3.946 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3330 .0559  
40.000 .2123 -.0015

ALPHA ( 5 ) = 11.991 BETA ( 3 ) = .172 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3330 .0537  
40.000 .2027 -.0118

ALPHA ( 5 ) = 11.985 BETA ( 4 ) = 4.243 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3289 .0455  
40.000 .1812 -.0233

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5937

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB037)

ALPHA ( 5 ) = 11.975 BETA ( 5 ) = 8.313 MACH = .59676 Q = 594.79 P = 2385.8 RN/L = 4.8888

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.0000 .3277 .0415  
40.0000 .1742 -.0418

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG38) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.002 BETA ( 1 ) = -3.853 MACH = 1.3931 Q = 600.20 P = 441.83 RN/L = 2.9112

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .1953 .2176  
40.000 .1311 .0938

ALPHA ( 1 ) = -3.940 BETA ( 2 ) = .193 MACH = 1.3931 Q = 600.20 P = 441.83 RN/L = 2.9112

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .1935 .2207  
40.000 .1236 .0739

ALPHA ( 1 ) = -3.950 BETA ( 3 ) = 4.276 MACH = 1.3931 Q = 600.20 P = 441.83 RN/L = 2.9112

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .1906 .2107  
40.000 .1573 .1020

ALPHA ( 2 ) = .030 BETA ( 1 ) = -3.869 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9073

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2500 .2571  
40.000 .2349 .1922

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BDFAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = 1.400



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R OK3 BODY FLAP LMR

(XE8638)

ALPHA ( 2 ) = .036 BETA ( 2 ) = .183 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9073

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2599 .2684  
40.000 .2046 .1469

ALPHA ( 2 ) = .034 BETA ( 3 ) = 4.255 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9073

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2535 .2598  
40.000 .2083 .1530

ALPHA ( 3 ) = 3.894 BETA ( 1 ) = -3.872 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3554 .3488  
40.000 .3488 .2652

ALPHA ( 3 ) = 3.895 BETA ( 2 ) = .183 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3544 .3426  
40.000 .3064 .2264

ALPHA ( 3 ) = 3.906 BETA ( 3 ) = 4.246 MACH = 1.3932 Q = 599.70 P = 441.36 RN/L = 2.9108

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3580 .3502  
40.000 .2834 .2207

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LAR

(XE8038)

ALPHA ( 4 ) = 7.922 BETA ( 1 ) = -3.861 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4747 .4402  
40.000 .4553 .3267

ALPHA ( 4 ) = 7.892 BETA ( 2 ) = .182 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4720 .4275  
40.000 .4045 .3017

ALPHA ( 4 ) = 7.830 BETA ( 3 ) = 4.245 MACH = 1.3932 Q = 599.39 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4753 .4379  
40.000 .3717 .2858

ALPHA ( 5 ) = 11.870 BETA ( 1 ) = -3.851 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5967 .5050  
40.000 .5201 .3612

ALPHA ( 5 ) = 11.880 BETA ( 2 ) = .187 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5933 .4963  
40.000 .4791 .3464

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5941

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8638)

ALPHA ( 5 ) = 11.873 BETA ( 3 ) = 4.255 MACH = 1.3941 Q = 600.12 P = 441.12 RN/L = 2.9072

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5999 .5072  
40.000 .4698 .3471

ALPHA ( 6 ) = 15.853 BETA ( 1 ) = -3.829 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .7004 .5547  
40.000 .5623 .3842

ALPHA ( 6 ) = 15.866 BETA ( 2 ) = .185 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .7014 .5518  
40.000 .5570 .3839

ALPHA ( 6 ) = 15.858 BETA ( 3 ) = 4.285 MACH = 1.3929 Q = 599.99 P = 441.82 RN/L = 2.9183

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .7010 .5583  
40.000 .5450 .3914ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5942

AMES 11-073(0A148) -140A/8/C/R ORB BODY FLAP LMR

(XEB039) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.991 BETA ( 1 ) = -3.847 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2436 .2200  
 40.000 .1418 .0883

ALPHA ( 1 ) = -3.979 BETA ( 2 ) = .190 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2342 .2328  
 40.000 .1050 .0787

ALPHA ( 1 ) = -3.988 BETA ( 3 ) = 4.277 MACH = 1.2464 Q = 599.79 P = 551.57 RN/L = 3.0146

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2322 .2119  
 40.000 .1522 .1018

ALPHA ( 2 ) = .058 BETA ( 1 ) = -3.868 MACH = 1.2468 Q = 599.66 P = 551.10 RN/L = 3.0101

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2850 .2625  
 40.000 .2651 .1947

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8639)

ALPHA ( 2 ) = .062 BETA ( 2 ) = .177 MACH = 1.2468 Q = 599.66 P = 551.10 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3105 .2812  
40.000 .2183 .1497

ALPHA ( 2 ) = .021 BETA ( 3 ) = 4.254 MACH = 1.2468 Q = 599.66 P = 551.10 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2354 .2503  
40.000 .2215 .1494

ALPHA ( 3 ) = 3.934 BETA ( 1 ) = -3.873 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4060 .3148  
40.000 .3503 .2500

ALPHA ( 3 ) = 3.935 BETA ( 2 ) = .189 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4142 .3447  
40.000 .3300 .2200

ALPHA ( 3 ) = 3.939 BETA ( 3 ) = 4.242 MACH = 1.2469 Q = 599.77 P = 551.10 RN/L = 3.0099

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4036 .3431  
40.000 .3119 .2108

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8639)

ALPHA ( 4 ) = 7.936 BETA ( 1 ) = -3.863 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5190 .4055  
40.000 .4646 .2937

ALPHA ( 4 ) = 7.897 BETA ( 2 ) = .182 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5227 .4017  
40.000 .4246 .2735

ALPHA ( 4 ) = 7.878 BETA ( 3 ) = 4.243 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5203 .4100  
40.000 .4053 .2555

ALPHA ( 5 ) = 11.869 BETA ( 1 ) = -3.849 MACH = 1.2475 Q = 600.06 P = 550.87 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .6110 .4493  
40.000 .5299 .3193

ALPHA ( 5 ) = 11.810 BETA ( 2 ) = .187 MACH = 1.2475 Q = 600.06 P = 550.87 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6082 .4434  
40.000 .4902 .3015

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5945

ALPHA ( 5 ) = 11.866 BETA ( 3 ) = 4.252 MACH = 1.2475 Q = 600.06 P = 550.87 RN/L = 3.0127  
(XE8639)

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6099 .4492  
40.000 .4557 .2761

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OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5946

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG40) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.842 MACH = 1.1017 Q = 601.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3069 .2334  
 40.000 .1926 .1361

ALPHA ( 1 ) = -3.997 BETA ( 2 ) = .194 MACH = 1.1017 Q = 601.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3362 .2706  
 40.000 .1850 .1451

ALPHA ( 1 ) = -3.996 BETA ( 3 ) = 4.277 MACH = 1.1017 Q = 601.11 P = 707.47 RN/L = 3.1883

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2873 .2232  
 40.000 .2112 .1319

ALPHA ( 2 ) = .015 BETA ( 1 ) = -3.867 MACH = 1.1001 Q = 600.08 P = 708.37 RN/L = 3.1860

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3514 .2452  
 40.000 .3368 .1852

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 85.000  
 BDELAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = 1.100



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG40)

ALPHA ( 2 ) = .018 BETA ( 2 ) = .181 MACH = 1.1001 Q = 600.08 P = 708.37 RN/L = 3.1860

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3856 .2656  
40.000 .2823 .1531

ALPHA ( 2 ) = .012 BETA ( 3 ) = 4.250 MACH = 1.1001 Q = 600.08 P = 708.37 RN/L = 3.1860

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3427 .2463  
40.000 .2695 .1260

ALPHA ( 3 ) = 3.919 BETA ( 1 ) = -3.865 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4427 .2919  
40.000 .4131 .2007

ALPHA ( 3 ) = 3.917 BETA ( 2 ) = .178 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4551 .2959  
40.000 .3718 .1758

ALPHA ( 3 ) = 3.924 BETA ( 3 ) = 4.244 MACH = 1.1005 Q = 600.31 P = 708.14 RN/L = 3.1848

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4412 .2923  
40.000 .3316 .1493

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5948

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG40)

ALPHA ( 4 ) = 7.901 BETA ( 1 ) = -3.860 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5227 .3260  
40.000 .4563 .2039

ALPHA ( 4 ) = 7.905 BETA ( 2 ) = .181 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5233 .3256  
40.000 .4239 .1913

ALPHA ( 4 ) = 7.904 BETA ( 3 ) = 4.239 MACH = 1.1015 Q = 600.67 P = 707.22 RN/L = 3.1834

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5194 .3233  
40.000 .3899 .1674

ALPHA ( 5 ) = 11.906 BETA ( 1 ) = -3.844 MACH = 1.0995 Q = 600.08 P = 709.07 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5759 .3469  
40.000 .4611 .2078

ALPHA ( 5 ) = 11.808 BETA ( 2 ) = .188 MACH = 1.0995 Q = 600.08 P = 709.07 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5753 .3490  
40.000 .4554 .2007

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 594B

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB040)

ALPHA ( 5 ) = 11.865 BETA ( 3 ) = 4.250 MACH = 1.0995 Q = 600.08 P = 709.07 RN/L = 3.1837

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5760 .3473  
40.000 .4200 .1814

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5950

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XES041) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0590 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.997 BETA ( 1 ) = -3.840 MACH = .89993 Q = 596.67 P = 1057.8 RVL = 3.5780

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .3071 .0947  
 40.000 .2149 .0228

ALPHA ( 1 ) = -3.991 BETA ( 2 ) = .199 MACH = .89993 Q = 599.67 P = 1057.8 RVL = 3.5780

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .3334 .1141  
 40.000 .1891 .0359

ALPHA ( 1 ) = -3.992 BETA ( 3 ) = 4.274 MACH = .89993 Q = 599.67 P = 1057.8 RVL = 3.5780

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3052 .0944  
 40.000 .2149 .0318

ALPHA ( 2 ) = .052 BETA ( 1 ) = -3.263 MACH = .89853 Q = 598.47 P = 1059.0 RVL = 3.5741

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3182 .1020  
 40.000 .2659 .0456

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 95.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .902

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB541)

ALPHA ( 2 ) = .055 BETA ( 2 ) = .182 MACH = .89853 Q = 598.47 P = 1059.0 RN/L = 3.5778

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3293 .1052  
40.000 .2265 .0107

ALPHA ( 2 ) = .070 BETA ( 3 ) = 4.253 MACH = .89853 Q = 598.47 P = 1059.0 RN/L = 3.5778

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3154 .0899  
40.000 .2048 -.0077

ALPHA ( 3 ) = 3.947 BETA ( 1 ) = -3.868 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3641 .1184  
40.000 .2989 .0516

ALPHA ( 3 ) = 4.018 BETA ( 2 ) = .184 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3618 .1156  
40.000 .2582 .0225

ALPHA ( 3 ) = 4.018 BETA ( 3 ) = 4.245 MACH = .89830 Q = 598.51 P = 1059.5 RN/L = 3.5778

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3677 .1220  
40.000 .2388 .0061

DATE 13 FEB 76

TOABULATED PRESSURE DATA - 04148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP L&amp;R

(XE8G41)

ALPHA ( 4 ) = 7.919 BETA ( 1 ) = -3.861 MACH = .99927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4056 .1321  
40.000 .3101 .0520

ALPHA ( 4 ) = 7.925 BETA ( 2 ) = .181 MACH = .89927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4018 .1299  
40.000 .2843 .0274

ALPHA ( 4 ) = 7.877 BETA ( 3 ) = 4.247 MACH = .89927 Q = 599.06 P = 1058.3 RN/L = 3.5789

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4092 .1317  
40.000 .2642 .0128

ALPHA ( 5 ) = 11.893 BETA ( 1 ) = -3.850 MACH = .89863 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4244 .1346  
40.000 .2993 .0239

ALPHA ( 5 ) = 11.848 BETA ( 2 ) = .191 MACH = .89963 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4266 .1370  
40.000 .2836 .0129

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5953

AMES 11-073(0A148) -140A/B/C/R ORR BODY FLAP LWR

(XEBG41)

ALPHA ( 5 ) = 11.881 BETA ( 3 ) = 4.259 MACH = .89863 Q = 598.63 P = 1059.0 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4271 .1427  
40.000 .2737 .0057

DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 5954

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8042) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.049 BETA ( 1 ) = -7.852 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2311 -.0147  
 40.000 .1657 -.0005

ALPHA ( 1 ) = -3.971 BETA ( 2 ) = -3.842 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2386 -.0123  
 40.000 .1657 -.0164

ALPHA ( 1 ) = -3.889 BETA ( 3 ) = .191 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2602 .0066  
 40.000 .1405 -.0727

ALPHA ( 1 ) = -3.983 BETA ( 4 ) = 4.273 MACH = .59622 Q = 593.85 P = 2386.3 RN/L = 4.8696

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
 .000 .2353 -.0132  
 40.000 .1426 -.0877

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .600



TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LMR (XE8042)

ALPHA ( 1 ) = -3.999 BETA ( 5 ) = 8.343 MACH = .59622 Q = 593.65 P = 2386.3 RN/L = 4.8696

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2295 -.0120  
40.000 .1181 -.0988

ALPHA ( 2 ) = -.003 BETA ( 1 ) = -7.885 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
.000 .2692 .0041  
40.000 .1989 .0231

ALPHA ( 2 ) = .104 BETA ( 2 ) = -3.860 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2494 -.0021  
40.000 .1805 -.0104

ALPHA ( 2 ) = .114 BETA ( 3 ) = .190 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2518 .0039  
40.000 .1584 -.0705

ALPHA ( 2 ) = .111 BETA ( 4 ) = 4.251 MACH = .59612 Q = 593.61 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2532 -.0037  
40.000 .1336 -.0825

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8642)

ALPHA ( 2 ) = .040 BETA ( 5 ) = 8.310 MACH = .59612 Q = 594.79 P = 2386.1 RN/L = 4.8734

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2614 .0030  
40.000 .1245 -.0890

ALPHA ( 3 ) = 4.041 BETA ( 1 ) = -7.899 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2923 .0157  
40.000 .2164 .0258

ALPHA ( 3 ) = 3.969 BETA ( 2 ) = -3.860 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2830 .0118  
40.000 .2091 -.0125

ALPHA ( 3 ) = 4.049 BETA ( 3 ) = .193 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2734 .0189  
40.000 .1756 -.0524

ALPHA ( 3 ) = 3.947 BETA ( 4 ) = 4.242 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2758 .0082  
40.000 .1516 -.0759

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8042)

ALPHA ( 3 ) = 3.985 BETA ( 5 ) = 8.292 MACH = .59674 Q = 594.79 P = 2386.0 RN/L = 4.8833

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2859 .0140  
40.000 .1444 -.0771

ALPHA ( 4 ) = 7.905 BETA ( 1 ) = -7.888 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3095 .0182  
40.000 .2228 .0248

ALPHA ( 4 ) = 7.915 BETA ( 2 ) = -3.855 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3051 .0246  
40.000 .2210 -.0039

ALPHA ( 4 ) = 8.038 BETA ( 3 ) = .180 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3019 .0361  
40.000 .1991 -.0320

ALPHA ( 4 ) = 8.035 BETA ( 4 ) = 4.244 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3040 .0192  
40.000 .1770 -.0608

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G42)

ALPHA ( 4 ) = 8.035 BETA ( 5 ) = 8.296 MACH = .59644 Q = 594.20 P = 2385.1 RN/L = 4.8802

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3064 .0161  
40.000 .1593 -.0745

ALPHA ( 5 ) = 11.910 BETA ( 1 ) = -7.853 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3311 .0448  
40.000 .2369 .0065

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = -3.836 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3282 .0415  
40.000 .2273 -.0183

ALPHA ( 5 ) = 11.966 BETA ( 3 ) = .177 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3318 .0539  
40.000 .2159 -.0256

ALPHA ( 5 ) = 11.976 BETA ( 4 ) = 4.252 MACH = .59658 Q = 594.43 P = 2385.8 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3291 .0404  
40.000 .1971 -.0532

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XESG42)

ALPHA ( 5 ) = 12.034 BETA ( 5 ) = 8.318 MACH = .59658 Q = 594.43 P = 2385.6 RN/L = 4.8825

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
40.000 .3263  
40.000 .1801 -.0520

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8643) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.070 BETA ( 1 ) = -3.850 MACH = .89793 Q = 598.79 P = 1060.9 RN/L = 3.6697

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4165 .2123  
 40.000 .3089 .1277

ALPHA ( 1 ) = -4.069 BETA ( 2 ) = .187 MACH = .89793 Q = 598.79 P = 1060.9 RN/L = 3.6697

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4396 .2273  
 40.000 .3064 .1178

ALPHA ( 1 ) = -4.079 BETA ( 3 ) = 4.272 MACH = .89793 Q = 598.79 P = 1060.9 RN/L = 3.6697

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4022 .2071  
 40.000 .3274 .1026

ALPHA ( 2 ) = -.029 BETA ( 1 ) = -3.865 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6486

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4032 .2110  
 40.000 .4018 .1421

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .900

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG43)

ALPHA ( 2 ) = -.015 BETA ( 2 ) = .186 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6486

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4353 .2186  
40.000 .3322 .1175

ALPHA ( 2 ) = -.021 BETA ( 3 ) = 4.247 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6486

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3955 .2085  
40.000 .3122 .0929

ALPHA ( 3 ) = 3.931 BETA ( 1 ) = -3.870 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4715 .2340  
40.000 .4359 .1515

ALPHA ( 3 ) = 3.931 BETA ( 2 ) = .185 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4709 .2341  
40.000 .3778 .1281

ALPHA ( 3 ) = 3.933 BETA ( 3 ) = 4.242 MACH = .89677 Q = 597.91 P = 1062.1 RN/L = 3.6364

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4711 .2340  
40.000 .3555 .1043

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG43)

ALPHA ( 4 ) = 7.998 BETA ( 1 ) = -3.866 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5201 .2485  
40.000 .4512 .1556

ALPHA ( 4 ) = 8.006 BETA ( 2 ) = .180 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
.000 .5212 .2493  
40.000 .4185 .1367

ALPHA ( 4 ) = 8.004 BETA ( 3 ) = 4.244 MACH = .89613 Q = 597.48 P = 1062.9 RN/L = 3.6207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5246 .2497  
40.000 .3878 .1059

ALPHA ( 5 ) = 11.977 BETA ( 1 ) = -3.853 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5562 .2483  
40.000 .4446 .1322

ALPHA ( 5 ) = 11.989 BETA ( 2 ) = .182 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5564 .2543  
40.000 .4303 .1169



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XFS043)

ALPHA ( 5 ) = 11.978 BETA ( 3 ) = 4.261 MACH = .89753 O = 598.50 P = 1061.4 RN/L = 3.6129

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0150

PHI

.000 .5590 .2548  
40.000 .3957 .0943

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OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB044) 1 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDDER = .000 SPOBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = 10.000  
 R-ELVN = 10.000 MACH = .600

## PARAMETRIC DATA

ALPHA ( 1 ) = -4.010 BETA ( 1 ) = -7.850 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8840

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3471 .0934  
 40.000 .2932 .0747

ALPHA ( 1 ) = -3.994 BETA ( 2 ) = -3.842 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8840

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3532 .0959  
 40.000 .2953 .0473

ALPHA ( 1 ) = -3.985 BETA ( 3 ) = .188 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8840

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3793 .1077  
 40.000 .2547 .0330

ALPHA ( 1 ) = -3.992 BETA ( 4 ) = 4.269 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8840

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3495 .0983  
 40.000 .2662 .0204

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG44)

ALPHA ( 1 ) = -4.007 BETA ( 5 ) = 8.349 MACH = .59610 Q = 593.75 P = 2387.2 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3450 .0947  
40.000 .2436 -.0014

ALPHA ( 2 ) = .039 BETA ( 1 ) = -7.986 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3946 .1053  
40.000 .3445 .0940

ALPHA ( 2 ) = .032 BETA ( 2 ) = -3.866 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3582 .0990  
40.000 .3256 .0562

ALPHA ( 2 ) = .053 BETA ( 3 ) = .192 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3722 .0959  
40.000 .2815 .0392

ALPHA ( 2 ) = .049 BETA ( 4 ) = 4.248 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3666 .1000  
40.000 .2629 .0148

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEB044)  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 2 ) = .044 BETA ( 5 ) = 8.307 MACH = .59632 Q = 593.96 P = 2386.1 RN/L = 4.8783

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3878 .1070  
40.000 .2449 -.3041

ALPHA ( 3 ) = 3.963 BETA ( 1 ) = -7.902 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4200 .1110  
40.000 .3566 .0905

ALPHA ( 3 ) = 3.964 BETA ( 2 ) = -3.864 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.3785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3987 .1061  
40.000 .3310 .0524

ALPHA ( 3 ) = 3.969 BETA ( 3 ) = .189 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3970 .1093  
40.000 .3020 .0415

ALPHA ( 3 ) = 3.972 BETA ( 4 ) = 4.243 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4118 .1142  
40.000 .2854 .0261

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBG44)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

ALPHA ( 3 ) = 3.982 BETA ( 5 ) = 8.290 MACH = .59694 Q = 595.02 P = 2385.4 RN/L = 4.8785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4213 .1170  
40.000 .2731 .0122

ALPHA ( 4 ) = 8.025 BETA ( 1 ) = -7.890 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4435 .1144  
40.000 .3572 .0982

ALPHA ( 4 ) = 8.036 BETA ( 2 ) = -3.859 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4312 .1240  
40.000 .3478 .0686

ALPHA ( 4 ) = 8.040 BETA ( 3 ) = .178 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4383 .1243  
40.000 .3287 .0507

ALPHA ( 4 ) = 8.039 BETA ( 4 ) = 4.241 MACH = .59616 Q = 593.73 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4376 .1264  
40.000 .3125 .0395

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G44)

ALPHA ( 4 ) = 8.038 BETA ( 5 ) = 8.285 MACH = .59616 Q = 593.74 P = 2386.3 RN/L = 4.8652

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4390 .1202  
40.000 .2854 .0102

ALPHA ( 5 ) = 12.021 BETA ( 1 ) = -7.852 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4676 .1355  
40.000 .3749 .0863

ALPHA ( 5 ) = 11.932 BETA ( 2 ) = -3.840 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4614 .1318  
40.000 .3599 .0674

ALPHA ( 5 ) = 11.946 BETA ( 3 ) = .176 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4615 .1365  
40.000 .3434 .0532

ALPHA ( 5 ) = 11.941 BETA ( 4 ) = 4.247 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4641 .1316  
40.000 .3269 .0394

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG44)

ALPHA ( 5 ) = 11.928 BETA ( 5 ) = 8.307 MACH = .59616 Q = 593.74 P = 2386.7 RN/L = 4.8654

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4617 .1256  
40.000 .2961 .0221

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LW.

(XE8045) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.961 BETA ( 1 ) = -3.852 MACH = .89683 Q = 597.89 P = 1061.9 RN/L = 3.6441

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4086 .2155  
 40.000 .2661 .1181

ALPHA ( 1 ) = -3.932 BETA ( 2 ) = .188 MACH = .89683 Q = 597.89 P = 1061.9 RN/L = 3.6441

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4321 .2336  
 40.000 .2915 .1225

ALPHA ( 1 ) = -3.942 BETA ( 3 ) = 4.270 MACH = .89683 Q = 537.89 P = 1061.9 RN/L = 3.6441

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3877 .2122  
 40.000 .3152 .1042

ALPHA ( 2 ) = .010 BETA ( 1 ) = -3.868 MACH = .89650 Q = 597.56 P = 1061.9 RN/L = 3.6228

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3930 .2149  
 40.000 .3425 .1352

## PARAMETRIC DATA

RUDDER = .000 SPDGRK = 55.000  
 BDFLAP = 22.500 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = .900



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G45)

ALPHA ( 2 ) = .025 BETA ( 2 ) = .185 MACH = .89660 Q = 597.56 P = 1061.9 RN/L = 3.6228

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4226 .2242  
40.000 .3067 .1187

ALPHA ( 2 ) = .019 BETA ( 3 ) = 4.247 MACH = .89660 Q = 597.56 P = 1061.9 RN/L = 3.6228

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .3926 .2154  
40.000 .3057 .1003

ALPHA ( 3 ) = 3.946 BETA ( 1 ) = -3.873 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.6099

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4509 .2356  
40.000 .3730 .1406

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = .184 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.6099

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4529 .2354  
40.000 .3477 .1205

ALPHA ( 3 ) = 3.937 BETA ( 3 ) = 4.239 MACH = .89837 Q = 599.08 P = 1060.5 RN/L = 3.6099

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4599 .2415  
40.000 .3366 .1034

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5972

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G45)

ALPHA ( 4 ) = 7.970 BETA ( 1 ) = -3.868 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5142 .2514  
40.000 .4025 .1478

ALPHA ( 4 ) = 7.979 BETA ( 2 ) = .177 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5156 .2519  
40.000 .3863 .1288

ALPHA ( 4 ) = 7.978 BETA ( 3 ) = 4.243 MACH = .89753 Q = 598.50 P = 1061.4 RN/L = 3.5937

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5148 .2532  
40.000 .3648 .1085

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -3.856 MACH = .89553 Q = 597.97 P = 1062.9 RN/L = 3.5856

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5549 .2587  
40.000 .4330 .1444

ALPHA ( 5 ) = 11.961 BETA ( 2 ) = .178 MACH = .89553 Q = 597.97 P = 1062.9 RN/L = 3.5856

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5591 .2590  
40.000 .4187 .1228

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5973

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG45)

ALPHA ( 5 ) = 11.950 BETA ( 3 ) = 4.259 MACH = .89653 Q = 597.97 P = 1062.9 RN/L = 3.5856

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5585 .2662  
40.000 .3910 .1082

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5974

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG46) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.081 BETA ( 1 ) = -7.851 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.8516

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3348 .0847  
 40.000 .2451 .0319

ALPHA ( 1 ) = -3.953 BETA ( 2 ) = -3.833 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.8516

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3505 .0928  
 40.000 .2522 .0387

ALPHA ( 1 ) = -3.951 BETA ( 3 ) = .188 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.8516

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3770 .1040  
 40.000 .2276 .0263

ALPHA ( 1 ) = -3.958 BETA ( 4 ) = 4.239 MACH = .59592 Q = 593.39 P = 2387.4 RN/L = 4.8516

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3405 .0933  
 40.000 .2401 .0022

## PARAMETRIC DATA

RUDCCR = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBG46)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 1 ) = -3.973 BETA ( 5 ) = 8.335 MACH = .59592 Q = 594.08 P = 2387.4 RN/L = 4.8518

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3324 .0905  
40.000 .2110 -.0136

ALPHA ( 2 ) = .060 BETA ( 1 ) = -7.888 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3865 .1009  
40.000 .2948 .0592

ALPHA ( 2 ) = .070 BETA ( 2 ) = -3.865 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3598 .0968  
40.000 .2869 .0416

ALPHA ( 2 ) = .070 BETA ( 3 ) = .181 MACH = .59534 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3704 .0996  
40.000 .2555 .0199

ALPHA ( 2 ) = .068 BETA ( 4 ) = 4.248 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3651 .1037  
40.000 .2374 -.0006

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5976

AMES 11-073(0A148) -140A/8/C/R ORB BODY FLAP LWR (XEBG4S)

ALPHA ( 2 ) = .053 BETA ( 5 ) = 8.306 MACH = .59634 Q = 594.08 P = 2386.3 RN/L = 4.8479

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3839 .1001  
40.000 .2221 -.0177

ALPHA ( 3 ) = 4.012 BETA ( 1 ) = -7.901 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4156 .1109  
40.000 .3241 .0684

ALPHA ( 3 ) = 4.016 BETA ( 2 ) = -3.862 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3976 .1097  
40.000 .3047 .0488

ALPHA ( 3 ) = 4.027 BETA ( 3 ) = .191 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3943 .1103  
40.000 .2727 .0259

ALPHA ( 3 ) = 4.030 BETA ( 4 ) = 4.239 MACH = .59704 Q = 595.39 P = 2386.0 RN/L = 4.8469

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4021 .1136  
40.000 .2590 .0085

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5977

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG46)

ALPHA ( 3 ) = 4.035 BETA ( 5 ) = 8.288 MACH = .59704 Q = 595.39 P = 2385.0 RN/L = 4.8459

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4131 .1104  
40.000 .2426 .0024

ALPHA ( 4 ) = 7.996 BETA ( 1 ) = -7.892 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4394 .1209  
40.000 .3411 .0770

ALPHA ( 4 ) = 6.007 BETA ( 2 ) = -3.861 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4297 .1190  
40.000 .3170 .0601

ALPHA ( 4 ) = 6.012 BETA ( 3 ) = .176 MACH = .59670 Q = 554.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4282 .1208  
40.000 .2974 .0403

ALPHA ( 4 ) = 8.012 BETA ( 4 ) = 4.240 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8410

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4306 .1229  
40.000 .2781 .0133ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 (1) 11-073-1)

PAGE 5978

APCS 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG46)

ALPHA ( 4 ) = 8.009 BETA ( 5 ) = 8.293 MACH = .59670 Q = 594.93 P = 2387.1 RN/L = 4.8363

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .4356 .1194  
40.000 .2578 .0027

ALPHA ( 5 ) = 11.987 BETA ( 1 ) = -7.852 MACH = .59592 Q = 595.28 P = 2386.8 RN/L = 4.8363

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .4635 .1324  
40.000 .3592 .0866

ALPHA ( 5 ) = 12.008 BETA ( 2 ) = -3.842 MACH = .59592 Q = 595.28 P = 2386.8 RN/L = 4.8363

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .5558 .1342  
40.000 .3573 .0577

ALPHA ( 5 ) = 12.016 BETA ( 3 ) = .174 MACH = .59592 Q = 595.28 P = 2386.8 RN/L = 4.8363

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .4559 .1375  
40.000 .3211 .0524

ALPHA ( 5 ) = 11.917 BETA ( 4 ) = 4.245 MACH = .59592 Q = 595.28 P = 2386.8 RN/L = 4.8363

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .4627 .1359  
40.000 .2952 .0216



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEP345)

ALPHA ( 5 ) = 11.904 BETA ( 5 ) = 8.309 MACH = .59592 Q = 595.28 P = 2395.6 RVL = 4.8353

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4588 .1334  
40.000 .2765 .0034

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5980

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8647) ( 05 AUG 75 )

## REFERENCE DATA

SPER = 2690.0000 SQ.FT. XMRP = 1075.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -4.021 BETA ( 1 ) = -3.852 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1963 .1975  
 40.000 .0699 .0222

ALPHA ( 1 ) = -4.015 BETA ( 2 ) = .189 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1867 .1955  
 40.000 .1185 .0367

ALPHA ( 1 ) = -4.023 BETA ( 3 ) = 4.275 MACH = 1.3993 Q = 600.40 P = 438.06 RN/L = 2.9180

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1926 .1871  
 40.000 .1167 .0732

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.871 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2426 .2341  
 40.000 .1537 .1089

## PARAMETRIC DATA

RUDDER = -10.000 SPD8RK = 85.000  
 BOFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = 1.400

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG47)

ALPHA ( 2 ) = -.002 BETA ( 2 ) = .186 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2501 .2373  
40.000 .1524 .0898

ALPHA ( 2 ) = -.007 BETA ( 3 ) = 4.251 MACH = 1.3999 Q = 600.31 P = 437.59 RN/L = 2.9188

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2422 .2268  
40.000 .1617 .1012

ALPHA ( 3 ) = 3.927 BETA ( 1 ) = -3.876 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3381 .3155  
40.000 .2446 .1897

ALPHA ( 3 ) = 3.927 BETA ( 2 ) = .191 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3382 .3098  
40.000 .2429 .1773

ALPHA ( 3 ) = 3.930 BETA ( 3 ) = 4.244 MACH = 1.3955 Q = 600.04 P = 440.18 RN/L = 2.9202

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3443 .3185  
40.000 .2404 .1808

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5982

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8647)

ALPHA ( 4 ) = 7.853 BETA ( 1 ) = -3.871 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4493 .4011  
40.000 .3699 .2636

ALPHA ( 4 ) = 7.994 BETA ( 2 ) = .174 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4439 .3917  
40.000 .3470 .2516

ALPHA ( 4 ) = 7.994 BETA ( 3 ) = 4.239 MACH = 1.3954 Q = 600.24 P = 440.41 RN/L = 2.9228

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4488 .3978  
40.000 .3304 .2536

ALPHA ( 5 ) = 11.867 BETA ( 1 ) = -3.858 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5585 .4648  
40.000 .4382 .2914

ALPHA ( 5 ) = 11.873 BETA ( 2 ) = .176 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5520 .4636  
40.000 .4255 .3050

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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A/F'S 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB047)

ALPHA ( 5 ) = 11.868 BETA ( 3 ) = 4.257 MACH = 1.3955 Q = 600.34 P = 440.41 RN/L = 2.9245

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5559 .4684  
40.000 .4181 .3151

ALPHA ( 6 ) = 15.839 BETA ( 1 ) = -3.834 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6551 .5225  
40.000 .4953 .3355

ALPHA ( 6 ) = 15.851 BETA ( 2 ) = .174 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6532 .5241  
40.000 .5002 .3517

ALPHA ( 6 ) = 15.843 BETA ( 3 ) = 4.283 MACH = 1.3943 Q = 600.32 P = 441.12 RN/L = 2.9229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6534 .5255  
40.000 .4929 .3681ORIGINAL PAGE 12  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5984

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEBG48) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.024 BETA ( 1 ) = -3.849 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2222 .1837  
 40.000 .0742 .0357

ALPHA ( 1 ) = -4.005 BETA ( 2 ) = .189 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2104 .1995  
 40.000 .0766 .0366

ALPHA ( 1 ) = -4.015 BETA ( 3 ) = 4.273 MACH = 1.2475 Q = 600.37 P = 551.11 RN/L = 3.0241

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2118 .1768  
 40.000 .1121 .0547

ALPHA ( 2 ) = .012 BETA ( 1 ) = -3.869 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2611 .2226  
 40.000 .1587 .1111

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBG48)  
AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 2 ) = .020 BETA ( 2 ) = .189 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2804 .2355  
40.000 .1457 .0781

ALPHA ( 2 ) = .014 BETA ( 3 ) = 4.249 MACH = 1.2460 Q = 599.92 P = 552.04 RN/L = 3.0247

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2803 .2237  
40.000 .1431 .0829

ALPHA ( 3 ) = 3.951 BETA ( 1 ) = -3.873 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3715 .3022  
40.000 .2686 .1845

ALPHA ( 3 ) = 3.950 BETA ( 2 ) = .185 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3728 .2995  
40.000 .2529 .1609

ALPHA ( 3 ) = 3.954 BETA ( 3 ) = 4.240 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0262

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3736 .3049  
40.000 .2516 .1536

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8048)

ALPHA ( 4 ) = 7.898 BETA ( 1 ) = -3.868 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4749 .3689  
40.000 .3745 .2329

ALPHA ( 4 ) = 8.000 BETA ( 2 ) = .178 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4757 .3540  
40.000 .3500 .2182

ALPHA ( 4 ) = 8.003 BETA ( 3 ) = 4.235 MACH = 1.2462 Q = 600.16 P = 552.05 RN/L = 3.0273

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4779 .3698  
40.000 .3382 .2137

ALPHA ( 5 ) = 11.933 BETA ( 1 ) = -3.854 MACH = 1.2450 Q = 599.95 P = 552.98 RN/L = 3.0281

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0450

PHI

.000 .5654 .4175  
40.000 .4354 .2604

ALPHA ( 5 ) = 11.941 BETA ( 2 ) = .176 MACH = 1.2450 Q = 599.95 P = 552.98 RN/L = 3.0281

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5628 .4123  
40.000 .4141 .2510



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5987

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XEBG48)

ALPHA ( 5 ) = 11.936 BETA ( 3 ) = 4.253 MACH = 1.2450 Q = 599.95 P = 552.98 RN/L = 3.0281

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0:80 1.0:60

PHI

.5601 .4173  
40.000 .4091 .2529

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5988

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G49) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.022 BETA ( 1 ) = -3.848 MACH = 1.1001 Q = 600.26 P = 708.59 RN/L = 3.1930

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2628 .1893  
 40.000 .1273 .0789

ALPHA ( 1 ) = -4.022 BETA ( 2 ) = .189 MACH = 1.1001 Q = 600.26 P = 708.59 RN/L = 3.1930

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .2690 .2146  
 40.000 .1168 .0775

ALPHA ( 1 ) = -4.029 BETA ( 3 ) = 4.271 MACH = 1.1001 Q = 600.26 P = 708.59 RN/L = 3.1930

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2357 .1826  
 40.000 .1259 .0623

ALPHA ( 2 ) = .025 BETA ( 1 ) = -3.865 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1951

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2932 .2102  
 40.000 .2187 .1210

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5989

AMES 11-073(CA148) -140A/B/C/R ORB BODY FLAP LMR (XEBG49)

ALPHA ( 2 ) = .030 BETA ( 2 ) = .186 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3423 .2359  
40.000 .1991 .1077

ALPHA ( 2 ) = .026 BETA ( 3 ) = 4.247 MACH = 1.1003 Q = 600.53 P = 708.60 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2831 .2114  
40.000 .1785 .0832

ALPHA ( 3 ) = 3.995 BETA ( 1 ) = -3.867 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3950 .2584  
40.000 .2840 .1512

ALPHA ( 3 ) = 3.996 BETA ( 2 ) = .185 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4089 .2711  
40.000 .2826 .1432

ALPHA ( 3 ) = 3.999 BETA ( 3 ) = 4.239 MACH = 1.1004 Q = 600.49 P = 708.37 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3909 .2651  
40.000 .2625 .1261ORIGINAL PAGE 12  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5990

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

IXE8G49)

ALPHA ( 4 ) = 7.942 BETA ( 1 ) = -3.865 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4791 .3004  
40.000 .3461 .1650

ALPHA ( 4 ) = 8.042 BETA ( 2 ) = .178 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4832 .3023  
40.000 .3517 .1604

ALPHA ( 4 ) = 8.044 BETA ( 3 ) = 4.232 MACH = 1.1006 Q = 600.80 P = 708.61 RN/L = 3.1953

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4777 .3027  
40.000 .3355 .1516

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.845 MACH = 1.0980 Q = 599.65 P = 710.48 RN/L = 3.1930

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5448 .3253  
40.000 .4177 .1805

ALPHA ( 5 ) = 11.986 BETA ( 2 ) = .181 MACH = 1.0980 Q = 599.65 P = 710.48 RN/L = 3.1930

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5483 .3308  
40.000 .4137 .1779

ALPHA ( 5 ) = 11.992    BETA ( 3 ) = 4.250    MACH = 1.0980    Q = 599.65    P = 710.48    PN/L = 3.1930  
(XEB049)

SECTION ( 1 ) BODY FLAP LOWER                      DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
	.5486	.3299
40.000	.3876	.1659

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5992

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB050) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.9000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0000

ALPHA ( 1 ) = -4.039 BETA ( 1 ) = -3.850 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5753

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .3003 .0893  
 40.000 .1768 .0045

ALPHA ( 1 ) = -4.025 BETA ( 2 ) = .188 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5753

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .3260 .1077  
 40.000 .1620 -.0016

ALPHA ( 1 ) = -4.037 BETA ( 3 ) = 4.257 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5753

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .2881 .0859  
 40.000 .1924 -.0232

ALPHA ( 2 ) = .032 BETA ( 1 ) = -3.857 MACH = .89853 Q = 599.04 P = 1060.0 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
 .000 .2560 .0909  
 40.000 .2138 .0181

## PARAMETRIC DATA

RUDDER = -10.000 SPOBRK = 55.000  
 BDFLAP = 15.300 L-ELVN = 4.000  
 R-ELVN = 4.000 PACH = .500

DATE 13 FEB 76

TABULATED PRESSURE DATA - 04148 ( AMES 11-073-1 )

PAGE 5993

AMES 11-073(04148) -140A/B/C/R ORB BODY FLAP LWR

(XEBGSD)

ALPHA ( 2 ) = .035 BETA ( 2 ) = .184 MACH = .89853 Q = 599.04 P = 1050.0 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3142 .0924  
40.000 .1799 -.0157

ALPHA ( 2 ) = .028 BETA ( 3 ) = 4.248 MACH = .89853 Q = 599.04 P = 1060.0 RN/L = 3.5758

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2987 .0940  
40.000 .1935 -.0319

ALPHA ( 3 ) = 3.993 BETA ( 1 ) = -3.868 MACH = .90073 Q = 600.62 P = 1057.6 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3517 .1071  
40.000 .2392 .0299

ALPHA ( 3 ) = 4.003 BETA ( 2 ) = .184 MACH = .90073 Q = 600.62 P = 1057.6 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3470 .1070  
40.000 .2131 -.0059

ALPHA ( 3 ) = 4.005 BETA ( 3 ) = 4.239 MACH = .90073 Q = 600.62 P = 1057.6 RN/L = 3.5790

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3523 .1097  
40.000 .2016 -.0287

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5994

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8650)

ALPHA ( 4 ) = 8.040 BETA ( 1 ) = -3.870 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3854 .1214  
40.000 .2513 .0365

ALPHA ( 4 ) = 8.045 BETA ( 2 ) = .178 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3923 .1202  
40.000 .2576 .0072

ALPHA ( 4 ) = 8.043 BETA ( 3 ) = 4.236 MACH = .89937 Q = 599.61 P = 1059.0 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3958 .1225  
40.000 .2237 -.0203

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.854 MACH = .89910 Q = 599.28 P = 1059.0 RN/L = 3.5742

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4137 .1232  
40.000 .2753 .0269

ALPHA ( 5 ) = 11.989 BETA ( 2 ) = .180 MACH = .89910 Q = 599.28 P = 1059.0 RN/L = 3.5742

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4102 .1317  
40.000 .2562 .0024



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5995

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8950)

ALPHA ( 5 ) = 11.979    BETA ( 3 ) = 4.260    MACH = .89910    Q = 599.28    P = 1059.0    RN/L = 3.5742

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB    1.0180    1.0460

PHI

.000    .4180    .1321  
40.000    .2432    -.0055

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5596

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB651) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.976 BETA ( 1 ) = -7.854 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2171 -.0183  
 40.000 .1312 -.0418

ALPHA ( 1 ) = -3.959 BETA ( 2 ) = -3.844 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2282 -.0155  
 40.000 .1375 -.0489

ALPHA ( 1 ) = -3.955 BETA ( 3 ) = .188 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2434 -.0022  
 40.000 .1095 -.0780

ALPHA ( 1 ) = -3.963 BETA ( 4 ) = 4.269 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2204 -.0184  
 40.000 .1177 -.0934

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 85.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = 4.000 MACH = .600

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8051)

ALPHA ( 1 ) = -3.980 BETA ( 5 ) = 8.339 MACH = .59542 Q = 592.57 P = 2387.9 RN/L = 4.8104

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2151 -.0154  
40.000 .0950 -.1066

ALPHA ( 2 ) = .060 BETA ( 1 ) = -7.891 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2543 -.0023  
40.000 .1666 -.0306

ALPHA ( 2 ) = .070 BETA ( 2 ) = -3.863 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2384 -.0102  
40.000 .1600 -.0400

ALPHA ( 2 ) = .075 BETA ( 3 ) = .185 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2401 -.0059  
40.000 .1298 -.0700

ALPHA ( 2 ) = .070 BETA ( 4 ) = 4.248 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2410 -.0046  
40.000 .1137 -.0974ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8651)

ALPHA ( 2 ) = .066 BETA ( 5 ) = 8.300 MACH = .59620 Q = 593.99 P = 2387.5 RN/L = 4.8200

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-000 .2506 .0044  
40.000 .1054 -.1044

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -7.901 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-000 .2704 .0088  
40.000 .1822 -.0262

ALPHA ( 3 ) = 4.027 BETA ( 2 ) = -3.864 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-000 .2605 -.0007  
40.000 .1683 -.0354

ALPHA ( 3 ) = 4.029 BETA ( 3 ) = .191 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-000 .2659 .0088  
40.000 .1462 -.0671

ALPHA ( 3 ) = 4.031 BETA ( 4 ) = 4.239 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8166

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
-000 .2647 .0079  
40.000 .1263 -.0873

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5999

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8651)

ALPHA ( 3 ) = 4.035 BETA ( 5 ) = 8.279 MACH = .59564 Q = 593.05 P = 2388.1 RN/L = 4.8156

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2727 .0089  
40.000 .1177 -.0948

ALPHA ( 4 ) = 8.061 BETA ( 1 ) = -7.986 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2939 .0187  
40.000 .1942 -.0244

ALPHA ( 4 ) = 8.070 BETA ( 2 ) = -3.859 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2892 .0128  
40.000 .1850 -.0322

ALPHA ( 4 ) = 8.069 BETA ( 3 ) = .180 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2919 .0240  
40.000 .1658 -.0535

ALPHA ( 4 ) = 8.069 BETA ( 4 ) = 4.237 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2972 .0278  
40.000 .1476 -.0656

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6000

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8651)

ALPHA ( 4 ) = 8.053 BETA ( 5 ) = 8.284 MACH = .59572 Q = 593.16 P = 2387.8 RN/L = 4.8368

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2937 .0148  
40.000 .1316 -.0829

ALPHA ( 5 ) = 12.002 BETA ( 1 ) = -7.847 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3172 .0323  
40.000 .2098 -.0046

ALPHA ( 5 ) = 12.023 BETA ( 2 ) = -3.840 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3144 .0323  
40.000 .2004 -.0235

ALPHA ( 5 ) = 12.027 BETA ( 3 ) = .177 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3189 .0342  
40.000 .1838 -.0424

ALPHA ( 5 ) = 12.024 BETA ( 4 ) = 4.250 MACH = .59550 Q = 592.81 P = 2388.1 RN/L = 4.8267

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3174 .0354  
40.000 .1876 -.0548

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6001

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR (XE8651)

ALPHA ( 5 ) = 12.010 BETA ( 5 ) = 8.307 MACH = .59550 Q = 592.81 P = 2388.1 RV/L = 4.8267

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .3179 .0275  
40.000 .1581 -.0642

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6002

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8G52) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.050 BETA ( 1 ) = -3.860 MACH = 1.3963 Q = 600.46 P = 439.94 RN/L = 2.9139

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .1905 .1853  
40.000 .0396 -.0105

ALPHA ( 1 ) = -4.043 BETA ( 2 ) = .186 MACH = 1.3963 Q = 600.46 P = 439.94 RN/L = 2.9139

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .1826 .1764  
40.000 .0853 .0508

ALPHA ( 1 ) = -4.048 BETA ( 3 ) = 4.268 MACH = 1.3963 Q = 600.46 P = 439.94 RN/L = 2.9139

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .1956 .1749  
40.000 .0764 .0580

ALPHA ( 2 ) = -.027 BETA ( 1 ) = -3.878 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2380 .2252  
40.000 .1430 .0755

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 55.000  
BDFLAP = 16.300 L-ELVN = -4.000  
R-ELVN = 4.000 MACH = 1.400



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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6003

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8652)

ALPHA ( 2 ) = -.013 BETA ( 2 ) = .172 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.030 .2495 .2275  
40.000 .1269 .0892

ALPHA ( 2 ) = -.015 BETA ( 3 ) = 4.247 MACH = 1.3971 Q = 600.78 P = 439.70 RN/L = 2.9154

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.030 .2438 .2167  
40.000 .1299 .0907

ALPHA ( 3 ) = 3.910 BETA ( 1 ) = -3.886 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3317 .3014  
40.000 .2271 .1549

ALPHA ( 3 ) = 3.912 BETA ( 2 ) = .174 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3312 .2978  
40.000 .2076 .1461

ALPHA ( 3 ) = 3.916 BETA ( 3 ) = 4.236 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3407 .3082  
40.000 .2056 .1594

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5004

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG52)

ALPHA ( 4 ) = 7.922 BETA ( 1 ) = -3.876 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4339 .3835  
40.000 .3056 .2071

ALPHA ( 4 ) = 7.930 BETA ( 2 ) = .169 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4392 .3774  
40.000 .2979 .2161

ALPHA ( 4 ) = 7.931 BETA ( 3 ) = 4.235 MACH = 1.3965 Q = 599.65 P = 439.24 RN/L = 2.9107

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4456 .3859  
40.000 .2921 .2281

ALPHA ( 5 ) = 11.858 BETA ( 1 ) = -3.866 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9156

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5441 .4502  
40.000 .3799 .2655

ALPHA ( 5 ) = 11.867 BETA ( 2 ) = .167 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9156

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5376 .4482  
40.000 .3841 .2860

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6005

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G52)

ALPHA ( 5 ) = 11.865 BETA ( 3 ) = 4.248 MACH = 1.3951 Q = 600.34 P = 440.65 RN/L = 2.9166

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5435 .4423  
40.000 .5757 .2348

ALPHA ( 6 ) = 15.826 BETA ( 1 ) = -3.845 MACH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6350 .5101  
40.000 .4681 .3402

ALPHA ( 6 ) = 15.841 BETA ( 2 ) = .165 MACH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6346 .5077  
40.000 .4648 .3325

ALPHA ( 6 ) = 15.833 BETA ( 3 ) = 4.274 MACH = 1.3947 Q = 600.64 P = 441.12 RN/L = 2.9102

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6352 .5046  
40.000 .4559 .3537

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5006

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

DXE8653) ( 05 AUG 75 )

## REFERENCE DATA

SPEF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 930.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.036 BETA ( 1 ) = -3.860 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .1515 .1245  
40.000 -.0155 -.0592

ALPHA ( 1 ) = -4.029 BETA ( 2 ) = .182 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .1593 .1317  
40.000 .0352 -.0105

ALPHA ( 1 ) = -4.033 BETA ( 3 ) = 4.271 MACH = 1.2435 Q = 597.22 P = 551.79 RN/L = 3.0068

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .1561 .1284  
40.000 .0237 -.0050

ALPHA ( 2 ) = -.011 BETA ( 1 ) = -3.881 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .2072 .1690  
40.000 .1002 .0215

## PARAMETRIC DATA

RUDDER = -10.000 SPDRK = 55.000  
 BOFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = 4.000 MACH = 1.250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5007

AMES 11-07310A148) -140A/B/C/R 02B BODY FLAP LWR

DXB653

ALPHA ( 2 ) = .001 BETA ( 2 ) = .178 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .2341 .1880  
40.000 .0854 .0355

ALPHA ( 2 ) = .000 BETA ( 3 ) = 4.247 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0119

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .2059 .1755  
40.000 .0874 .0390

ALPHA ( 3 ) = 3.944 BETA ( 1 ) = -3.877 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .3553 .2837  
40.000 .2312 .1482

ALPHA ( 3 ) = 3.945 BETA ( 2 ) = .180 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .3546 .2821  
40.000 .2069 .1244

ALPHA ( 3 ) = 3.949 BETA ( 3 ) = 4.232 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0121

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .3540 .2861  
40.000 .2045 .1225

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 500B

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB653)

ALPHA ( 4 ) = 7.975 BETA ( 1 ) = -3.876 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4583 .3472  
40.000 .2971 .1886

ALPHA ( 4 ) = 7.918 BETA ( 2 ) = .169 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4579 .3469  
40.000 .2871 .1797

ALPHA ( 4 ) = 7.882 BETA ( 3 ) = 4.233 MACH = 1.2465 Q = 599.91 P = 551.57 RN/L = 3.0143

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4634 .3531  
40.000 .2660 .1816

ALPHA ( 5 ) = 11.916 BETA ( 1 ) = -3.857 MACH = 1.2482 Q = 600.48 P = 550.64 RN/L = 3.0151

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5413 .3994  
40.000 .3554 .2287

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .181 MACH = 1.2482 Q = 600.48 P = 550.64 RN/L = 3.0151

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .5419 .3938  
40.000 .3575 .2252

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8053)

ALPHA ( 5 ) = 11.5 BETA ( 3 ) = 4.245 MACH = 1.2482 Q = 600.48 P = 550.64 RN/L = 3.0151

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.5445 .3976  
40.000 .3579 .2350

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6010

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8654) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP =  
 LREF = 474.8000 IN. YMRP =  
 BREF = 936.0080 IN. ZMRP =  
 SCALE = .0300

ALPHA ( 1 ) = -3.970 BETA ( 1 ) =

-3.853 MACH = 1.1014

Q

P = 600.89

P = 707.69

RN/L = 3.1837

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2468 .1713

40.000 .0383 .0185

ALPHA ( 1 ) = -3.931 BETA ( 2 ) =

.182 MACH = 1.1014

Q

P = 600.89

P = 707.69

RN/L = 3.1837

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2554 .1882

40.000 .0829 .0565

ALPHA ( 1 ) = -3.991 BETA ( 3 ) =

4.263 MACH = 1.1014

Q

P = 600.89

P = 707.69

RN/L = 3.1837

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2192 .1569

40.000 .0694 .0210

ALPHA ( 2 ) = .009 BETA ( 1 ) =

-3.870 MACH = 1.1014

Q

P = 600.89

P = 707.69

RN/L = 3.1864

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2905 .1933

40.000 .1609 .0854



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6011

AMES 11-073(0A148) -140A/9/C/R ORB BODY FLAP LWR

(XE8654)

ALPHA ( 2 ) = .092 BETA ( 2 ) = .176 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1864

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3228 .2136  
40.000 .1442 .0876

ALPHA ( 2 ) = .026 BETA ( 3 ) = 4.243 MACH = 1.1014 Q = 600.89 P = 707.69 RN/L = 3.1864

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2655 .1924  
40.000 .1355 .0479

ALPHA ( 3 ) = 3.932 BETA ( 1 ) = -3.873 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3681 .2373  
40.000 .2262 .1269

ALPHA ( 3 ) = 3.933 BETA ( 2 ) = .171 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3622 .2436  
40.000 .2139 .1114

ALPHA ( 3 ) = 3.943 BETA ( 3 ) = 4.232 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1859

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3730 .2424  
40.000 .1953 .0901

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5012

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG54)

ALPHA ( 4 ) = 7.906 BETA ( 1 ) = -3.871 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4540 .2799  
40.000 .2787 .1515

ALPHA ( 4 ) = 8.006 BETA ( 2 ) = .170 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4514 .2954  
40.000 .2969 .1378

ALPHA ( 4 ) = 8.008 BETA ( 3 ) = 4.224 MACH = 1.1009 Q = 600.53 P = 707.91 RN/L = 3.1862

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4562 .2820  
40.000 .2624 .1152

ALPHA ( 5 ) = 11.922 BETA ( 1 ) = -3.854 MACH = 1.1005 Q = 500.31 P = 708.13 RN/L = 3.1832

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5247 .3128  
40.000 .3419 .1651

ALPHA ( 5 ) = 11.941 BETA ( 2 ) = .179 MACH = 1.1005 Q = 500.31 P = 708.13 RN/L = 3.1832

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5290 .3156  
40.000 .3411 .1523

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8054)

RN/L = 3.1832

= 708.13

P

= 600.31

Q

= 1.1005

MACH = 4.239

BETA ( 3 ) = 12.006

ALPHA ( 5 ) =

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/CB 1.0190 1.0460

PHI

.300 .5272 .3160  
40.000 .3263 .1377

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6014

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XERO55) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SO.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.9000 IN. YMRP = .0000 IN. YO  
 GREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.996 BETA ( 1 ) = -3.861 MACH = .90063 Q = 600.64 P = 1057.8 RN/L = 3.5876

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3057 .1100  
 40.000 .1232 .0214

ALPHA ( 1 ) = -3.902 BETA ( 2 ) = .179 MACH = .90063 Q = 600.64 P = 1057.8 RN/L = 3.5876

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VAR. RLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3144 .1099  
 40.000 .1549 .0172

ALPHA ( 1 ) = -3.952 BETA ( 3 ) = 4.262 MACH = .90063 Q = 600.64 P = 1057.8 RN/L = 3.5876

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2720 .0937  
 40.000 .1729 .0074

ALPHA ( 2 ) = .074 BETA ( 1 ) = -3.874 MACH = .89883 Q = 599.16 P = 1059.5 RN/L = 3.5834

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3009 .1019  
 40.000 .1841 .0425

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = 4.000 MACH = .900

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5015

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LMR (XE8655)

ALPHA ( 2 ) = .080 BETA ( 2 ) = .167 MACH = .89883 Q = 599.16 P = 1059.5 RN/L = 3.5834

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3134 .0995  
40.000 .1826 .0137

ALPHA ( 2 ) = .057 BETA ( 3 ) = 4.244 MACH = .89883 Q = 599.16 P = 1059.5 RN/L = 3.5834

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2699 .0915  
40.000 .1653 -.0160

ALPHA ( 3 ) = 3.946 BETA ( 1 ) = -3.879 MACH = .89970 Q = 599.92 P = 1059.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3522 .1185  
40.000 .2373 .0551

ALPHA ( 3 ) = 3.951 BETA ( 2 ) = .176 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3451 .1115  
40.000 .2177 .0232

ALPHA ( 3 ) = 3.955 BETA ( 3 ) = 4.235 MACH = .89970 Q = 599.92 P = 1058.7 RN/L = 3.5860

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3434 .1072  
40.000 .1921 -.0241

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6016

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG55)

ALPHA ( 4 ) = 7.893 BETA ( 1 ) = -3.876 MACH = .89963 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3999 .1295  
40.000 .2694 .0611

ALPHA ( 4 ) = 8.030 BETA ( 2 ) = .173 MACH = .89863 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3921 .1223  
40.000 .2434 .0315

ALPHA ( 4 ) = 8.015 BETA ( 3 ) = 4.230 MACH = .89863 Q = 599.02 P = 1059.8 RN/L = 3.5893

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3820 .1183  
40.000 .2170 .0054

ALPHA ( 5 ) = 11.973 BETA ( 1 ) = -3.861 MACH = .89910 Q = 599.49 P = 1059.5 RN/L = 3.5890

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4153 .1374  
40.000 .2828 .0566

ALPHA ( 5 ) = 11.987 BETA ( 2 ) = .182 MACH = .89910 Q = 599.49 P = 1059.5 RN/L = 3.5890

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4133 .1332  
40.000 .2560 .0272

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5017

AMES 11-073(0A148) -140A/B/C/R OR8 BODY FLAP LMR

(XEEG55)

ALPHA ( 5 ) = 12.005    BETA ( 3 ) = 4.250    MACH = .89910    Q = 599.49    P = 1059.5    RN/L = 3.5890

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB    1.0160    1.0450

PHI  
      .000    .4106    .1307  
40.000    .2350    .0028

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 501B

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB555) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2652.0000 SQ.FT.    XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN.        YMRP = .0000 IN. YO  
 BREF = 936.0680 IN.        ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.044    BETA ( 1 ) = -7.862    MACH = .59674    Q = 594.66    P = 2385.6    RN/L = 4.8797

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

P41  
 .0000 .2264 .0070  
 .0000 .1235 -.0301

ALPHA ( 2 ) = -3.971    BETA ( 2 ) = -3.856    MACH = .59674    Q = 594.66    P = 2385.6    RN/L = 4.8797

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

P41  
 .0000 .2455 .0089  
 .0000 .1335 -.0416

ALPHA ( 3 ) = -3.944    BETA ( 3 ) = .179    MACH = .59674    Q = 594.66    P = 2385.6    RN/L = 4.8797

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

P41  
 .0000 .2465 .0120  
 .0000 .1211 -.0477

ALPHA ( 4 ) = -3.952    BETA ( 4 ) = 4.259    MACH = .59674    Q = 594.66    P = 2385.6    RN/L = 4.8797

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X LB 1.0180 1.0460

P41  
 .0000 .2185 -.0016  
 .0000 .1248 -.0516

## PARAMETRIC DATA

RUDDER = -10.000    SPDRK = 55.000  
 BDFLAP = 15.300    L-ELVN = -4.000  
 R-ELVN = 4.000    MACH = .600



DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5019

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XESSES)

ALPHA ( 1 ) = -3.957 BETA ( 5 ) = 8.330 MACH = .59674 Q = 595.74 P = 2355.5 RN/L = 4.8905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2148 -.0142  
40.000 .0931 -.0815

ALPHA ( 2 ) = .082 BETA ( 1 ) = -7.901 MACH = .59728 Q = 595.74 P = 2355.5 RN/L = 4.8905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2625 .0204  
40.000 .1467 -.0179

ALPHA ( 2 ) = .093 BETA ( 2 ) = -3.873 MACH = .59728 Q = 595.74 P = 2355.5 RN/L = 4.8905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2407 -.0160  
40.000 .1550 -.0247

ALPHA ( 2 ) = .095 BETA ( 3 ) = .179 MACH = .59728 Q = 595.74 P = 2355.5 RN/L = 4.8905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2447 .0111  
40.000 .1393 -.0449

ALPHA ( 2 ) = .092 BETA ( 4 ) = 4.242 MACH = .59728 Q = 595.74 P = 2355.5 RN/L = 4.8905

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2407 .0021  
40.000 .1191 -.0479ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 0020

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(NEB055)

ALPHA ( 2 ) = .039 BETA ( 5 ) = 8.298 MACH = .59728 Q = 595.74 P = 2395.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2520 -.0037  
40.000 .0119 -.0662

ALPHA ( 3 ) = 4.036 BETA ( 1 ) = -7.914 MACH = .59696 Q = 595.02 P = 2395.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2522 -.0204  
40.000 .0132 -.0053

ALPHA ( 3 ) = 4.041 BETA ( 2 ) = -3.873 MACH = .59696 Q = 595.02 P = 2395.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2716 .0218  
40.000 .0179 -.0207

ALPHA ( 3 ) = 4.095 BETA ( 3 ) = .176 MACH = .59696 Q = 595.02 P = 2395.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2572 .0202  
40.000 .0166 -.0377

ALPHA ( 3 ) = 3.977 BETA ( 4 ) = 4.232 MACH = .59696 Q = 595.02 P = 2395.3 RN/L = 4.8897

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2650 .0137  
40.000 .0192 -.0491

DATE 13 FEB 76

TABLED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5021

AMES 11-073(0A148) -140A/B/C/R C/B BODY FLAP LWR

(X55555)

ALPHA ( 3 ) = 4.011 BETA ( 5 ) = 8.279 MACH = .59596 Q = 595.02 P = 2395.3 RVL = -.899

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2705 .0612  
40.000 .1319 -.0624

ALPHA ( 4 ) = 8.004 BETA ( 1 ) = -7.903 MACH = .59578 Q = 594.78 P = 2395.7 RVL = -.8929

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .7897 .0299  
40.000 .1929 -.0053

ALPHA ( 4 ) = 8.017 BETA ( 2 ) = -3.872 MACH = .59578 Q = 594.78 P = 2395.7 RVL = -.8929

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2929 .0259  
40.000 .1929 -.0140

ALPHA ( 4 ) = 7.995 BETA ( 3 ) = .166 MACH = .59578 Q = 594.78 P = 2395.7 RVL = -.8929

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2929 .0257  
40.000 .1929 -.0255

ALPHA ( 4 ) = 7.931 BETA ( 4 ) = 4.229 MACH = .59578 Q = 594.78 P = 2395.7 RVL = -.8929

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2929 .0259  
40.000 .1929 -.0336

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( )

PAGE 6022

AMES 11-073(0A148) -1404

BODY FLAP LWR

(XE8056)

ALPHA ( 4 ) = 7.987 BETA ( 5 ) = 8.286 MACH = .5 P = 2385.7 RN/L = 4.8929

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C:

X/LB 1.0180 1.0460

PHI

.000 .2902 .0120  
40.000 .1513 -.0409

ALPHA ( 5 ) = 11.920 BETA ( 1 ) = -7.867 MACH = .59670 Q = 594.67 P = 385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3221 .0457  
40.000 .2190 .0059

ALPHA ( 5 ) = 11.942 BETA ( 2 ) = -3.850 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3165 .0368  
40.000 .2091 -.0059

ALPHA ( 5 ) = 12.055 BETA ( 3 ) = .165 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3153 .0377  
40.000 .1911 -.0105

ALPHA ( 5 ) = 12.053 BETA ( 4 ) = 4.239 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3149 .0327  
40.000 .1773 -.0203

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6023

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR (XE8056)

ALPHA ( 5 ) = 12.101 BETA ( 5 ) = 8.299 MACH = .59670 Q = 594.67 P = 2385.8 RN/L = 4.8946

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3148 .0299  
40.000 .1656 -.0404

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6024

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG57) ( D5 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8300 IN. YMRP = .0000 IN. YO  
 BREF = 935.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.843 MACH = 1.3927 Q = 599.59 P = 441.59 RN/L = 2.9055

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2010 .1825  
 40.000 .0714 .0193

ALPHA ( 1 ) = -3.938 BETA ( 2 ) = .202 MACH = 1.3927 Q = 599.59 P = 441.59 RN/L = 2.9055

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1949 .1754  
 40.000 .1147 .0311

ALPHA ( 1 ) = -4.001 BETA ( 3 ) = 4.282 MACH = 1.3927 Q = 593.59 P = 441.59 RN/L = 2.9055

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1854 .1712  
 40.000 .1208 .0558

ALPHA ( 2 ) = .015 BETA ( 1 ) = -3.863 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.9062

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2461 .2232  
 40.000 .1549 .1024

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BOFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = 1.400

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6023

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8657)

ALPHA ( 2 ) = .021 BETA ( 2 ) = .195 MACH = 1.3931 Q = 599.59 P = 441.36 RV/L = 2.9062

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2502 .2284  
40.000 .1485 .0840

ALPHA ( 2 ) = .016 BETA ( 3 ) = 4.262 MACH = 1.3931 Q = 599.59 P = 441.36 RV/L = 2.9062

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2391 .2228  
40.000 .1625 .0976

ALPHA ( 3 ) = 3.900 BETA ( 1 ) = -3.867 MACH = 1.3926 Q = 599.48 P = 441.59 RV/L = 2.9063

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
.000 .3413 .3027  
40.000 .2428 .1817

ALPHA ( 3 ) = 1.005 BETA ( 2 ) = .197 MACH = 1.3926 Q = 599.48 P = 441.59 RV/L = 2.9063

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3353 .2989  
40.000 .2393 .1711

ALPHA ( 3 ) = 3.907 BETA ( 3 ) = 4.252 MACH = 1.3926 Q = 599.48 P = 441.59 RV/L = 2.9063

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3358 .3034  
40.000 .2348 .1697

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6026

AMES 11-073(0A148) -1403/E/C/R OR8 BODY FLAP LMR

(XEBG57)

ALPHA ( 4 ) = 7.945 BETA ( 1 ) = -3.862 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8959

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4465 .3835  
40.000 .3640 .2534

ALPHA ( 4 ) = 7.917 BETA ( 2 ) = .187 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8959

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4364 .3743  
40.000 .3466 .2399

ALPHA ( 4 ) = 7.848 BETA ( 3 ) = 4.251 MACH = 1.3931 Q = 599.59 P = 441.36 RN/L = 2.8959

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4349 .3767  
40.000 .3274 .2418

ALPHA ( 5 ) = 11.907 BETA ( 1 ) = -3.847 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5479 .4438  
40.000 .4322 .2781

ALPHA ( 5 ) = 11.890 BETA ( 2 ) = .186 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5407 .4482  
40.000 .4245 .2913



DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6027

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8057)

ALPHA ( 5 ) = 11.884 BETA ( 3 ) = 4.265 MACH = 1.3946 Q = 600.23 P = 440.88 RN/L = 2.9052

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5403 .4500  
40.000 .4143 .3046

ALPHA ( 6 ) = 15.871 BETA ( 1 ) = -3.822 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9056

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6359 .5032  
40.000 .4881 .3236

ALPHA ( 6 ) = 15.883 BETA ( 2 ) = .187 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9056

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6379 .5100  
40.000 .4946 .3438

ALPHA ( 6 ) = 15.915 BETA ( 3 ) = 4.292 MACH = 1.3964 Q = 598.94 P = 438.77 RN/L = 2.9056

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .6352 .5167  
40.000 .4876 .3547

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEB658) ( 05 AUG 75 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

REFERENCE DATA  
 SPREF = 2690.0000 SQ.FT. YMRP = 1076.6800 IN. XO RUDDER = 10.000 SFDBRK = 55.000  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO BOFLAP = 16.300 L-ELVN = 4.000  
 BREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO R-ELVN = -4.000 MACH = 1.250  
 SCALE = .0300  
 ALPHA ( 1 ) = -4.015 BETA ( 1 ) = -3.834 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

PARAMETRIC DATA

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI .000 .2204 .1633  
 40.000 .0788 .0331  
 ALPHA ( 1 ) = -4.012 BETA ( 2 ) = .202 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI .000 .2062 .1777  
 40.000 .0719 .0295  
 ALPHA ( 1 ) = -4.007 BETA ( 3 ) = 4.280 MACH = 1.2474 Q = 600.07 P = 550.87 RN/L = 3.0101

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI .000 .2030 .1646  
 40.000 .1116 .0428  
 ALPHA ( 2 ) = .035 BETA ( 1 ) = -3.858 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0093

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460  
 PHI .000 .2602 .2103  
 40.000 .1570 .1043

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8058)

ALPHA ( 2 ) = .040 BETA ( 2 ) = .189 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0093

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2760 .2195  
40.000 .1475 .0700

ALPHA ( 2 ) = .037 BETA ( 3 ) = 4.261 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0093

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2557 .2079  
40.000 .1623 .0744

ALPHA ( 3 ) = 3.928 BETA ( 1 ) = -3.861 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0120

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3536 .2852  
40.000 .2618 .1714

ALPHA ( 3 ) = 3.929 BETA ( 2 ) = .192 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0120

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3588 .2802  
40.000 .2458 .1448

ALPHA ( 3 ) = 3.933 BETA ( 3 ) = 4.251 MACH = 1.2467 Q = 599.84 P = 551.34 RN/L = 3.0120

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3595 .2824  
40.000 .2448 .1386

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6030

AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG58)

ALPHA ( 4 ) = 7.966 BETA ( 1 ) = -3.855 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4601 .3496  
40.000 .3666 .2179

ALPHA ( 4 ) = 7.970 BETA ( 2 ) = .187 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4643 .3458  
40.000 .3469 .2017

ALPHA ( 4 ) = 7.894 BETA ( 3 ) = 4.250 MACH = 1.2463 Q = 599.67 P = 551.57 RN/L = 3.0105

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .4565 .3481  
40.000 .3293 .1966

ALPHA ( 5 ) = 11.923 BETA ( 1 ) = -3.838 MACH = 1.2454 Q = 599.32 P = 552.04 RN/L = 3.0114

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5480 .3999  
40.000 .4253 .2438

ALPHA ( 5 ) = 11.931 BETA ( 2 ) = .197 MACH = 1.245 Q = 599.32 P = 552.04 RN/L = 3.0114

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 .5435 .3954  
40.000 .4046 .2420

DATE 13 FEB 76      TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR      (XE8658)

ALPHA ( 5 ) = 11.925    BETA ( 3 ) = 4.259    MACH = 1.2454    Q = 599.32    P = 552.04    RVL = 3.0114

SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB      1.0182    1.0460

PHI  
+0.000    .5394    .3963  
+0.000    .3949    .2331

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5032

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XES059) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.831 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .020 .242 .1622  
 40.000 .1333 .0893

ALPHA ( 1 ) = -3.894 BETA ( 2 ) = .203 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .020 .2689 .1958  
 40.000 .1037 .0694

ALPHA ( 1 ) = -4.013 BETA ( 3 ) = 4.281 MACH = 1.1006 Q = 600.08 P = 707.67 RN/L = 3.1805

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .020 .2328 .1652  
 40.000 .1150 .0414

ALPHA ( 2 ) = .051 BETA ( 1 ) = -3.852 MACH = 1.1008 Q = 600.03 P = 707.43 RN/L = 3.1794

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .020 .2860 .1910  
 40.000 .2142 .1079

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5033

(XEBG59)

AVES 11-07310A148) -140A/E/C/R ORB BODY FLAP LWR

Case	Age	Sex	Weight (kg)	Height (cm)	Time (min)	Power (W)	Power (W/kg)	Power (W/L)
1	20	M	70	175	1000	700	10.0	3.1
2	25	F	60	160	1000	600	10.0	3.1
3	30	M	80	180	1000	800	10.0	3.1
4	35	F	70	170	1000	700	10.0	3.1
5	40	M	90	190	1000	900	10.0	3.1
6	45	F	80	180	1000	800	10.0	3.1
7	50	M	100	200	1000	1000	10.0	3.1
8	55	F	90	190	1000	900	10.0	3.1
9	60	M	110	210	1000	1100	10.0	3.1
10	65	F	100	200	1000	1000	10.0	3.1

SECTION / LIBRARY FLAP LOWER

	69:0-1	P7/X
	69:0-1	

2.41	.000	.3250	.2100
40.000	.000	.1904	.0933

	Q	=	600.03	P	=	707.43	RN/L	=	3.1794
--	---	---	--------	---	---	--------	------	---	--------

SECTION 1 BODY FLAP LOWER

394071 081071 27/X

PHI	.000	.1917
	.000	.0513
	.000	.1693
	.000	.2945

[illegible]

SECTION: WEDDY FLAP LOWER

09+0' 1 3810' 1 87/X

PHI		
.000	.3701	.2368
40.000	.2752	.1300

102 MACH = 1 1009 0 = 500.17 P = 707.44 EN/L = 3.1827

SECTION 1 BODY FLAP LOWER

0540.1	0810.1	Brix
1.0450		

[illegible]

Case	Age	Sex	Height	Weight	Temp	Pulse	Respiration	Blood Pressure	ECG	X-ray	Diagnosis
1	20	M	170	65	37.5	70	18	110/70	Normal	Normal	Acute Myocardial Infarction
2	45	F	155	55	38.0	80	20	120/80	Normal	Normal	Acute Myocardial Infarction
3	60	M	175	75	37.8	75	16	115/65	Normal	Normal	Acute Myocardial Infarction
4	75	F	160	60	38.2	85	22	125/85	Normal	Normal	Acute Myocardial Infarction
5	80	M	180	80	37.6	72	17	112/68	Normal	Normal	Acute Myocardial Infarction

SECTION: 11800 BODY FLAP LOWER

STX	1.0193	1.6450
XVLS	1.0193	1.6450

PHI		
100	.3657	.2390
49.000	.2395	.0926

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5034

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP LWR

(KEPSES)

ALPHA ( 4 ) = 7.909 BETA ( 1 ) = -2.848 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4521 .2762
.40.000	.3247 .1435

ALPHA ( 4 ) = 7.912 BETA ( 2 ) = .189 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4520 .2823
.40.000	.3346 .1405

ALPHA ( 4 ) = 7.911 BETA ( 3 ) = 4.247 MACH = 1.0993 Q = 599.26 P = 708.35 RN/L = 3.1817

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4509 .2822
.40.000	.3371 .1270

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -3.832 MACH = 1.0972 Q = 598.3 P = 710.00 RN/L = 3.1878

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.5249 .3107
.40.000	.4020 .1584

ALPHA ( 5 ) = 11.872 BETA ( 2 ) = .197 MACH = 1.0972 Q = 598.33 P = 710.00 RN/L = 3.1878

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.5269 .3140
.40.000	.3926 .1564



DATE 13 FEB 76      TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8G59)

ALPHA ( 5 ) = 11.865    BETA ( 3 ) = 4.258    MACH = 1.0972    Q = 598.33    P = 710.00    RN/L = 3.1878

SECTION 11 BODY FLAP LOWER      DEPENDENT VARIABLE CP

X/LB    1.0180    1.0450

PHI  
40.000    .5204    .3129  
40.000    .3613    .1448

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6036

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB060) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.026 BETA ( 1 ) = -3.841 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2803 .0852  
 40.000 .1715 -.0010

ALPHA ( 1 ) = -4.026 BETA ( 2 ) = .202 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3170 .1048  
 40.000 .1418 .0039

ALPHA ( 1 ) = -3.984 BETA ( 3 ) = 4.285 MACH = .89803 Q = 598.77 P = 1060.7 RN/L = 3.5631

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2364 .0982  
 40.000 .1945 .0048

ALPHA ( 2 ) = .056 BETA ( 1 ) = -3.856 MACH = .89813 Q = 598.75 P = 1060.5 RN/L = 3.5631

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2896 .0926  
 40.000 .2080 .0169

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = .900

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6037

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8060)

ALPHA ( 2 ) = .056 BETA ( 2 ) = .186 MACH = .89813 Q = 598.75 P = 1060.5 RN/L = 3.5631

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3141 .0994  
40.000 .1915 -.0015

ALPHA ( 2 ) = .048 BETA ( 3 ) = 4.260 MACH = .89813 Q = 598.75 P = 1060.5 RN/L = 3.5631

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2978 .0991  
40.000 .1860 -.0081

ALPHA ( 3 ) = 3.975 BETA ( 1 ) = -3.861 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3407 .1113  
40.000 .2391 .0285

ALPHA ( 3 ) = 4.019 BETA ( 2 ) = .193 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3447 .1142  
40.000 .2094 .0064

ALPHA ( 3 ) = 3.944 BETA ( 3 ) = 4.252 MACH = .89723 Q = 597.99 P = 1061.2 RN/L = 3.5607

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3470 .1189  
40.000 .2081 -.0099ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6039

AMES 11-073(0A148) -140A/8/C/R ORB BODY FLAP LMR (XE3G60)

ALPHA ( 4 ) = 8.020 BETA ( 1 ) = -3.857 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3788 .1250  
40.000 .2455 .0317

ALPHA ( 4 ) = 8.028 BETA ( 2 ) = .194 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3828 .1260  
40.000 .2366 .0103

ALPHA ( 4 ) = 8.024 BETA ( 3 ) = 4.248 MACH = .89903 Q = 599.30 P = 1059.3 RN/L = 3.5654

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3870 .1295  
40.000 .2313 -.0066

ALPHA ( 5 ) = 11.919 BETA ( 1 ) = -3.839 MACH = .89963 Q = 599.94 P = 1059.0 RN/L = 3.5645

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4246 .1256  
40.000 .2646 .0253

ALPHA ( 5 ) = 11.929 BETA ( 2 ) = .180 MACH = .89963 Q = 599.94 P = 1059.0 RN/L = 3.5645

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4070 .1330  
40.000 .2599 .0042

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6039

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8660)

ALPHA ( 5 ) = 11.915 BETA ( 3 ) = 4.268 MACH = .89863 Q = 599.94 P = 1059.0 RN/L = 3.5845

SECTION : BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4133 .1358  
40.000 .2416 -.0110

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6D40

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB661) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = 4.000  
 R-ELVN = -4.000 MACH = .600

ALPHA ( 1 ) = -4.014 BETA ( 1 ) = -7.854 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2163 .0013  
 40.000 .1303 -.0471

ALPHA ( 1 ) = -3.998 BETA ( 2 ) = -3.832 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2262 .0028  
 40.000 .1380 -.0563

ALPHA ( 1 ) = -3.980 BETA ( 3 ) = .201 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2482 .0125  
 40.000 .1193 -.0618

ALPHA ( 1 ) = -3.998 BETA ( 4 ) = 4.282 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2312 .0049  
 40.000 .1329 -.0676

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8661)

ALPHA ( 1 ) = -4.005 BETA ( 5 ) = 8.352 MACH = .59638 Q = 594.21 P = 2386.5 RN/L = 4.8411

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2216 .0050  
40.000 .1107 -.0752

ALPHA ( 2 ) = .015 BETA ( 1 ) = -7.895 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2514 .0281  
40.000 .1577 -.0413

ALPHA ( 2 ) = .022 BETA ( 2 ) = -3.851 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2379 .0039  
40.000 .1615 -.0339

ALPHA ( 2 ) = .105 BETA ( 3 ) = .189 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2449 .0115  
40.000 .1363 -.0604

ALPHA ( 2 ) = .103 BETA ( 4 ) = 4.264 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2423 .0173  
40.000 .1233 -.0720

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8661)

ALPHA ( 2 ) = .094 BETA ( 5 ) = 8.317 MACH = .59624 Q = 593.85 P = 2386.1 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2560 .0099  
40.000 .1155 -.0803

ALPHA ( 3 ) = 4.024 BETA ( 1 ) = -7.901 MACH = .59706 Q = 595.26 P = 2385.4 RN/L = 4.8521

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2707 .0291  
40.000 .1783 -.0399

ALPHA ( 3 ) = 4.026 BETA ( 2 ) = -3.849 MACH = .59706 Q = 595.26 P = 2385.4 RN/L = 4.8521

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2602 .0161  
40.000 .1713 -.0419

ALPHA ( 3 ) = 4.034 BETA ( 3 ) = .195 MACH = .59706 Q = 595.26 P = 2385.4 RN/L = 4.8521

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2637 .0146  
40.000 .1738 -.0543

ALPHA ( 3 ) = 4.044 BETA ( 4 ) = 4.254 MACH = .59706 Q = 595.26 P = 2385.4 RN/L = 4.8521

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2725 .0225  
40.000 .1358 -.0582



AMES 11-07310A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8661)

ALPHA ( 3 ) = 4.047 BETA ( 5 ) = 8.299 MACH = .59706 Q = 595.26 P = 2385.4 RV/L = 4.8521

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2801 .0174

40.000 .1307 -.0695

ALPHA ( 4 ) = 8.028 BETA ( 1 ) = -7.897 MACH = .59720 Q = 595.49 P = 2385.3 RV/L = 4.8534

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2878 .0167

40.000 .1869 -.0269

ALPHA ( 4 ) = 8.037 BETA ( 2 ) = -3.847 MACH = .59720 Q = 595.49 P = 2385.3 RV/L = 4.8534

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2916 .0237

40.000 .1839 -.0300

ALPHA ( 4 ) = 8.042 BETA ( 3 ) = .196 MACH = .59720 Q = 595.49 P = 2385.3 RV/L = 4.8534

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2919 .0293

40.000 .1704 -.0391

ALPHA ( 4 ) = 7.960 BETA ( 4 ) = 4.251 MACH = .59720 Q = 595.49 P = 2385.3 RV/L = 4.8534

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2969 .0303

40.000 .1558 -.0518

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AVES 11-073-1 )

PAGE 5044

AVES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEB061)

ALPHA ( 4 ) = 7.955 BETA ( 5 ) = 8.305 MACH = .59720 Q = 594.44 P = 2386.3 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3008 .0321  
40.000 .1546 -.0565

ALPHA ( 5 ) = 11.943 BETA ( 1 ) = -7.853 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3147 .0355  
40.000 .2067 -.0013

ALPHA ( 5 ) = 11.962 BETA ( 2 ) = -3.927 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3129 .0418  
40.000 .1979 -.0191

ALPHA ( 5 ) = 11.967 BETA ( 3 ) = .197 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3191 .0426  
40.000 .1909 -.0301

ALPHA ( 5 ) = 11.963 BETA ( 4 ) = 4.259 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3216 .0457  
40.000 .1756 -.0439

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6045

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG61)

ALPHA ( 5 ) = 11.951 BETA ( 5 ) = 8.316 MACH = .59660 Q = 594.44 P = 2386.0 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3234 .0508  
40.000 .1697 -.0369

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5046

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG62) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0500 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.059 BETA ( 1 ) = -3.849 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1870 .1590  
 40.000 .3387 -.0171

ALPHA ( 1 ) = -3.922 BETA ( 2 ) = .195 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1690 .1512  
 40.000 .0818 .0437

ALPHA ( 1 ) = -3.933 BETA ( 3 ) = 4.280 MACH = 1.3925 Q = 599.99 P = 442.06 RN/L = 2.9210

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1782 .1517  
 40.000 .0756 .0467

ALPHA ( 2 ) = .024 BETA ( 1 ) = -3.867 MACH = 1.3922 Q = 599.78 P = 442.06 RN/L = 2.9172

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2364 .2106  
 40.000 .1417 .0725

## PARAMETRIC DATA

RUDDER = 5.000 SPCBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = 1.400

DATE 13 FEB 78 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XEE062)

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

ALPHA ( 2 ) = .025 BETA ( 2 ) = .185 MACH = 1.3922 Q = 599.78 P = 442.05 RN/L = 2.9172

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .2404 .2105  
42.000 .1212 .0804

ALPHA ( 2 ) = .025 BETA ( 3 ) = 4.257 MACH = 1.3922 Q = 599.78 P = 442.05 RN/L = 2.9172

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .2335 .2076  
42.000 .1255 .0857

ALPHA ( 3 ) = 3.958 BETA ( 1 ) = -3.857 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .3299 .2858  
42.000 .2325 .1444

ALPHA ( 3 ) = 3.958 BETA ( 2 ) = .187 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .3244 .2798  
42.000 .2078 .1382

ALPHA ( 3 ) = 3.953 BETA ( 3 ) = 4.245 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9189

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .2283 .2864  
42.000 .2011 .1457

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 50-5

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XESG52)

ALPHA ( 4 ) = 7.927 BETA ( 1 ) = -3.866 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4309 .3610  
40.000 .3032 .1945

ALPHA ( 4 ) = 7.932 BETA ( 2 ) = .179 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4233 .3568  
40.000 .2952 .2022

ALPHA ( 4 ) = 7.933 BETA ( 3 ) = 4.245 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9182

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4222 .3616  
40.000 .2904 .2122

ALPHA ( 5 ) = 11.912 BETA ( 1 ) = -3.854 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5221 .4229  
40.000 .3765 .2549

ALPHA ( 5 ) = 11.921 BETA ( 2 ) = .184 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5196 .4263  
40.000 .3783 .2699

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6049

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8682)

ALPHA ( 5 ) = 11.919 BETA ( 3 ) = 4.258 MACH = 1.3916 Q = 599.87 P = 442.53 RN/L = 2.9199

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5182 .4245  
40.000 .3707 .2813

ALPHA ( 6 ) = 15.912 BETA ( 1 ) = -3.830 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6118 .4860  
40.000 .4658 .3217

ALPHA ( 6 ) = 15.924 BETA ( 2 ) = .184 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6105 .4897  
40.000 .4613 .3358

ALPHA ( 6 ) = 15.916 BETA ( 3 ) = 4.288 MACH = 1.3897 Q = 599.83 P = 443.71 RN/L = 2.9243

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .6134 .4874  
40.000 .4492 .3372

REFERENCE DATA				PARAMETRIC DATA			
SREF = 2690.0000 SQ.FT.	XMRP = 1076.6800 IN. XO			RUDDER = 5.000	SPDBRK = 55.000		
LREF = 474.8000 IN.	YMRP = .0000 IN. YO			BDFLAP = 16.300	L-ELVN = -4.000		
BREF = 936.0680 IN.	ZMRP = 375.0000 IN. ZO			R-ELVN = -4.000	MACH = 1.250		
SCALE = .0300							
ALPHA ( 1 ) = -4.050	BETA ( 1 ) = -3.840	MACH = 1.2459	Q = 600.11	P = 552.28	RN/L = 3.0241		
SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP							
X/LB	1.0180	1.0460					
PHI	.000	.2003	.1470				
	.40.000	.0272	-.0169				
ALPHA ( 1 ) = -3.916	BETA ( 2 ) = .196	MACH = 1.2459	Q = 600.11	P = 552.28	RN/L = 3.0241		
SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP							
X/LB	1.0180	1.0460					
PHI	.000	.1847	.1454				
	.40.000	.0593	.0150				
ALPHA ( 1 ) = -3.923	BETA ( 3 ) = 4.275	MACH = 1.2459	Q = 600.11	P = 552.28	RN/L = 3.0241		
SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP							
X/LB	1.0180	1.0460					
PHI	.000	.1952	.1401				
	.40.000	.0690	.0214				
ALPHA ( 2 ) = .044	BETA ( 1 ) = -3.864	MACH = 1.2451	Q = 593.58	P = 552.51	RN/L = 3.0238		
SECTION ( 1 ) BODY FLAP LOWER      DEPENDENT VARIABLE CP							
X/LB	1.0180	1.0460					
PHI	.000	.2480	.1919				
	.40.000	.1393	.0670				



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5051

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8653)

ALPHA ( 2 ) = .050 BETA ( 2 ) = .180 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2603 .1961  
40.000 .1174 .0561

ALPHA ( 2 ) = .046 BETA ( 3 ) = 4.256 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2438 .1869  
40.000 .1298 .0529

ALPHA ( 3 ) = 3.990 BETA ( 1 ) = -3.864 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3491 .2532  
40.000 .2313 .1376

ALPHA ( 3 ) = 3.991 BETA ( 2 ) = .185 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3456 .2614  
40.000 .2033 .1087

ALPHA ( 3 ) = 3.994 BETA ( 3 ) = 4.245 MACH = 1.2448 Q = 599.34 P = 552.51 RN/L = 3.0213

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3499 .2645  
40.000 .2029 .1048

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6052

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE6663)

ALPHA ( 4 ) = 7.968 BETA ( 1 ) = -3.863 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4400 .3263  
40.000 .2945 .1703

ALPHA ( 4 ) = 7.973 BETA ( 2 ) = .179 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4408 .3243  
40.000 .2783 .1563

ALPHA ( 4 ) = 7.897 BETA ( 3 ) = 4.244 MACH = 1.2457 Q = 599.38 P = 551.80 RN/L = 3.0207

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4438 .3289  
40.000 .2777 .1599

ALPHA ( 5 ) = 11.969 BETA ( 1 ) = -3.850 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5242 .3779  
40.000 .3491 .2047

ALPHA ( 5 ) = 11.877 BETA ( 2 ) = .185 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5221 .3769  
40.000 .3496 .2049

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6053

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XEBG63)

ALPHA ( 5 ) = 11.890 BETA ( 3 ) = 4.256 MACH = 1.2456 Q = 599.56 P = 552.04 RN/L = 3.0223

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5211 .3750  
40.000 .3491 .2149

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OF POOR QUALITY

DATE 13 FEB 76

## TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6054

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8GGH) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.951 BETA ( 1 ) = -3.840 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2373 .1435  
 40.000 .0563 .0095

ALPHA ( 1 ) = -3.948 BETA ( 2 ) = .196 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2353 .1568  
 40.000 .0770 .0272

ALPHA ( 1 ) = -3.942 BETA ( 3 ) = 4.273 MACH = 1.0981 Q = 598.93 P = 709.54 RN/L = 3.1905

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.003 .2224 .1374  
 40.000 .0763 -.0014

ALPHA ( 2 ) = .059 BETA ( 1 ) = -3.863 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2680 .1638  
 40.000 .1616 .0636

## PARAMETRIC DATA

RUDDER = 5.000 SPDBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6055

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR

(XE8064)

ALPHA ( 2 ) = .062 BETA ( 2 ) = .183 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2979 .1881  
40.000 .1411 .0634

ALPHA ( 2 ) = .059 BETA ( 3 ) = 4.253 MACH = 1.0998 Q = 599.80 P = 708.37 RN/L = 3.1909

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2046 .1680  
40.000 .1274 .0226

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -3.865 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3451 .2097  
40.000 .2206 .1015

ALPHA ( 3 ) = 4.021 BETA ( 2 ) = .178 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3575 .2178  
40.000 .2050 .0852

ALPHA ( 3 ) = 4.024 BETA ( 3 ) = 4.243 MACH = 1.0995 Q = 600.25 P = 705.31 RN/L = 3.1949

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3511 .2177  
40.000 .1789 .0551

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-- )

PAGE 6056

AMES 11-073(0A148) - 140A/B/C/R ORB BODY FLAP LMR

(XEBG64)

ALPHA ( 4 ) = 7.977 BETA ( 1 ) = -3.859 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4253 .2569  
40.000 .2709 .1255

ALPHA ( 4 ) = 7.981 BETA ( 2 ) = .181 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4335 .2584  
40.000 .2636 .1122

ALPHA ( 4 ) = 7.900 BETA ( 3 ) = 4.237 MACH = 1.0995 Q = 600.25 P = 709.31 RN/L = 3.1954

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4279 .2571  
40.000 .2405 .0922

ALPHA ( 5 ) = 11.919 BETA ( 1 ) = -3.844 MACH = 1.0980 Q = 599.84 P = 710.72 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5031 .2950  
40.000 .3189 .1424

ALPHA ( 5 ) = 11.930 BETA ( 2 ) = .189 MACH = 1.0980 Q = 599.84 P = 710.72 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5059 .2953  
40.000 .3194 .1342

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5057

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8664)

ALPHA ( 5 ) = 11.925 BETA ( 3 ) = 4.249 MACH = 1.0980 Q = 599.84 P = 710.72 RN/L = 3.1951

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
40.000 .5037 .2931  
.3059 .1181

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6058

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEBG65) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 935.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.965 BETA ( 1 ) = -3.837 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2869 .1024  
 40.000 .1104 .0169

ALPHA ( 1 ) = -3.963 BETA ( 2 ) = .195 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3030 .1115  
 40.000 .1338 .0190

ALPHA ( 1 ) = -3.957 BETA ( 3 ) = 4.274 MACH = .90037 Q = 600.12 P = 1057.6 RN/L = 3.5768

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2744 .0953  
 40.000 .1703 .0075

ALPHA ( 2 ) = .052 BETA ( 1 ) = -3.869 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2843 .0957  
 40.000 .1577 .0306

## PARAMETRIC DATA

RUDDER = 5.000 SPD8RK = 55.000  
 BDEFAP = 16.300 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .900



DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-; )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB665)

ALPHA ( 2 ) = .054 BETA ( 2 ) = .179 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3014 .1040  
40.000 .1721 .0205

ALPHA ( 2 ) = .050 BETA ( 3 ) = 4.252 MACH = .90007 Q = 599.62 P = 1057.3 RN/L = 3.5759

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2843 .0967  
40.000 .1625 -.0048

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -3.873 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3368 .1140  
40.000 .2098 .0471

ALPHA ( 3 ) = 4.021 BETA ( 2 ) = .183 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3380 .1151  
40.000 .2143 .0216

ALPHA ( 3 ) = 4.023 BETA ( 3 ) = 4.246 MACH = .89817 Q = 598.16 P = 1059.3 RN/L = 3.5705

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3442 .1146  
40.000 .1928 .0075

DATE 13 FEB 76

TASULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5050

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XEB655)

ALPHA ( 4 ) = 7.876 BETA ( 1 ) = -3.866 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3771 .1311  
40.000 .2502 .0553

ALPHA ( 4 ) = 7.884 BETA ( 2 ) = .183 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3814 .1330  
40.000 .2367 .0358

ALPHA ( 4 ) = 7.892 BETA ( 3 ) = 4.244 MACH = .89873 Q = 598.61 P = 1058.8 RN/L = 3.5706

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3854 .1325  
40.000 .2205 .0141

ALPHA ( 5 ) = 11.907 BETA ( 1 ) = -3.854 MACH = .89780 Q = 598.05 P = 1060.0 RN/L = 3.5707

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4077 .1424  
40.000 .2767 .0540

ALPHA ( 5 ) = 11.920 BETA ( 2 ) = .190 MACH = .89780 Q = 598.05 P = 1060.0 RN/L = 3.5707

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4031 .1403  
40.000 .2533 .0316

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6261

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XESGEB)

ALPHA ( 5 ) = 11.937 BETA ( 3 ) = 4.258 MACH = .89780 Q = 598.05 P = 1060.2 RAY/L = 3.5707

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI  
.000 .4073 .1393  
40.000 .2262 .0050

DATE 13 FEB 78 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

EXCESSIVE 105 103 75

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LREF = 474.8000 IN. YMRP = .0000 IN. YO  
BREF = 936.0580 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.037 BETA ( 1 ) = -7.846 MACH = .59482 Q = 591.26 P = 2387.4 PN/L = 4.5225

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2131 .0005  
40.000 .1031 -.0415

ALPHA ( 1 ) = -3.899 BETA ( 2 ) = -3.843 MACH = .59482 Q = 591.26 P = 2387.4 PN/L = 4.5225

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .2278 .0077  
40.000 .1245 -.0463

ALPHA ( 1 ) = -3.894 BETA ( 3 ) = .194 MACH = .59482 Q = 591.26 P = 2387.4 PN/L = 4.5225

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .2475 .0095  
40.000 .1206 -.0432

ALPHA ( 1 ) = -3.502 BETA ( 4 ) = 4.271 MACH = .59482 Q = 591.26 P = 2387.4 PN/L = 4.5225

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
.000 .2228 .0021  
40.000 .1243 -.0593

PARAMETRIC DATA

RUDDER = 5.000 SPDECK = 95.000  
BD/FLAP = 15.000 L-ELVN = -4.000  
R-ELVN = -4.000 MACH = .500

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR  
(XEB066)

ALPHA ( 1 ) = -3.917 BETA ( 5 ) = 8.333 MACH = .59482 Q = 591.26 P = 2387.4 RN/L = 4.8005

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2167 -.0093  
40.000 .1042 -.0559

ALPHA ( 2 ) = .066 BETA ( 1 ) = -7.866 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2495 -.0007  
40.000 .1295 -.0339

ALPHA ( 2 ) = .075 BETA ( 2 ) = -3.862 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2355 .0102  
40.000 .1489 -.0366

ALPHA ( 2 ) = .076 BETA ( 3 ) = .175 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2413 .0111  
40.000 .1381 -.0471

ALPHA ( 2 ) = .073 BETA ( 4 ) = 4.250 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2380 .0086  
40.000 .1205 -.0557

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6064

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8666)

ALPHA ( 2 ) = .069 BETA ( 5 ) = 8.308 MACH = .59550 Q = 592.43 P = 2386.4 RN/L = 4.8075

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2463 -.0036  
40.000 .1127 -.0556

ALPHA ( 3 ) = 4.021 BETA ( 1 ) = -7.899 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2715 .0104  
40.000 .1555 -.0194

ALPHA ( 3 ) = 4.024 BETA ( 2 ) = -3.864 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2522 .0177  
40.000 .1687 -.0323

ALPHA ( 3 ) = 4.022 BETA ( 3 ) = .186 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2633 .0156  
40.000 .1507 -.0403

ALPHA ( 3 ) = 4.025 BETA ( 4 ) = 4.244 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2641 .0115  
40.000 .1359 -.0518

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6065

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LHR

(XEBG66)

ALPHA ( 3 ) = 4.031 BETA ( 5 ) = 8.294 MACH = .59494 Q = 591.36 P = 2386.7 RN/L = 4.8049

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2721 .0026  
40.000 .1337 -.0477

ALPHA ( 4 ) = 7.869 BETA ( 1 ) = -7.888 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2892 .0199  
40.000 .1809 -.0148

ALPHA ( 4 ) = 7.986 BETA ( 2 ) = -3.859 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2890 .0277  
40.000 .1879 -.0224

ALPHA ( 4 ) = 7.991 BETA ( 3 ) = .178 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2934 .0334  
40.000 .1726 -.0248

ALPHA ( 4 ) = 7.992 BETA ( 4 ) = 4.237 MACH = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2927 .0210  
40.000 .1608 -.0308ORIGINAL PAGE IS  
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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5066

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XE8G66)

ALPHA ( 4 ) = 7.989 BETA ( 5 ) = 8.293 MACH / = .59424 Q = 590.06 P = 2387.2 RN/L = 4.7971

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2932 .0117  
40.000 .1543 -.0370

ALPHA ( 5 ) = 12.002 BETA ( 1 ) = -7.846 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3150 .0350  
40.000 .2062 -.0023

ALPHA ( 5 ) = 12.020 BETA ( 2 ) = -3.839 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3170 .0424  
40.000 .2038 -.0058

ALPHA ( 5 ) = 11.983 BETA ( 3 ) = .186 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3127 .0419  
40.000 .1849 -.0237

ALPHA ( 5 ) = 11.980 BETA ( 4 ) = 4.247 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3172 .0377  
40.000 .1756 -.0196



DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6067

(XE8666)

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP LMR

ALPHA ( 5 ) = 11.973 BETA ( 5 ) = 8.307 MACH = .59422 Q = 590.06 P = 2387.2 RN/L = 4.7978

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
40.000 .3159 .0323  
.1707 -.0309

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 80E8

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP LWR

(XES667) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ. FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.0000 IN. YMRP = .0000 IN. YO  
 BREF = 936.6660 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .900

ALPHA ( 1 ) = -3.954 BETA ( 1 ) = -3.649 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4136 .2295  
 40.000 .1900 .1538

ALPHA ( 1 ) = -3.952 BETA ( 2 ) = .192 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4102 .2433  
 40.000 .2783 .1348

ALPHA ( 1 ) = -3.959 BETA ( 3 ) = 4.272 MACH = .90057 Q = 600.66 P = 1058.0 RN/L = 3.6340

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3909 .2283  
 40.000 .2758 .1057

ALPHA ( 2 ) = .049 BETA ( 1 ) = -3.871 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3733 .2200  
 40.000 .3024 .1547

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6069

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LMR (XE8657)

ALPHA ( 2 ) = .052 BETA ( 2 ) = .177 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4094 .2276  
40.000 .2840 .1273

ALPHA ( 2 ) = .052 BETA ( 3 ) = 4.253 MACH = .90130 Q = 601.04 P = 1056.9 RN/L = 3.6167

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3724 .2197  
40.000 .2713 .0951

ALPHA ( 3 ) = 4.019 BETA ( 1 ) = -3.877 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4456 .2398  
40.000 .3746 .1610

ALPHA ( 3 ) = 4.018 BETA ( 2 ) = .181 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4511 .2389  
40.000 .3334 .1292

ALPHA ( 3 ) = 4.022 BETA ( 3 ) = 4.243 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.6007

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4528 .2424  
40.000 .3082 .1047

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6070

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8667)

ALPHA ( 4 ) = 7.985 BETA ( 1 ) = -3.860 MACH = .90040 Q = 600.32 P = 1057.8 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5017 .2557  
40.000 .4126 .1649

ALPHA ( 4 ) = 7.993 BETA ( 2 ) = .182 MACH = .90040 Q = 600.32 P = 1057.8 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5044 .2551  
40.000 .3720 .1373

ALPHA ( 4 ) = 7.992 BETA ( 3 ) = 4.242 MACH = .90040 Q = 600.32 P = 1057.8 RN/L = 3.5837

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5055 .2585  
40.000 .3380 .1172

ALPHA ( 5 ) = 11.953 BETA ( 1 ) = -3.856 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.5762

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5490 .2653  
40.000 .4254 .1586

ALPHA ( 5 ) = 11.963 BETA ( 2 ) = .189 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.5762

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5470 .2705  
40.000 .3914 .1396

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR (XE8057)

ALPHA ( 5 ) = 11.953 BETA ( 3 ) = 4.261 MACH = .89987 Q = 599.87 P = 1058.3 RN/L = 3.5762

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .5487 .2699  
 40.000 .3699 .1174

DATE 15 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 8072

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB35B) 05 AUG 75

## REFERENCE DATA

SREF = 2590.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = -4.000  
 R-ELVN = -4.000 MACH = .600

ALPHA ( 1 ) = -3.934 BETA ( 1 ) = -7.845 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3220 .0777  
 40.000 .2314 .0409

ALPHA ( 1 ) = -3.918 BETA ( 2 ) = -3.844 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3545 .0973  
 40.000 .2489 .0344

ALPHA ( 1 ) = -3.895 BETA ( 3 ) = .193 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3666 .1004  
 40.000 .2371 .0292

ALPHA ( 1 ) = -3.903 BETA ( 4 ) = 4.270 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8347

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3438 .0898  
 40.000 .2342 .0136

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6073

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

(XEB688)

ALPHA ( 1 ) = -3.916 BETA ( 5 ) = 8.339 MACH = .59574 Q = 593.04 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3291 .0785  
40.000 .2110 -.0021

ALPHA ( 2 ) = .067 BETA ( 1 ) = -7.888 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3811 -.0946  
40.000 .2694 .0560

ALPHA ( 2 ) = .076 BETA ( 2 ) = -3.860 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3565 .0977  
40.000 .2851 .0428

ALPHA ( 2 ) = .078 BETA ( 3 ) = .177 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3543 .0978  
40.000 .2493 .0279

ALPHA ( 2 ) = .074 BETA ( 4 ) = 4.252 MACH = .59556 Q = 592.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2570 .0953  
40.000 .2318 .0133ORIGINAL PAGE IS  
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DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5074

AMES 11-073(0A148) -14CA/B/C/R ORB BODY FLAP LWR

(XE805B)

ALPHA ( 3 ) = .055 BETA ( 5 ) = 8.307 MACH = .59556 Q = 594.68 P = 2387.2 RN/L = 4.8372

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3760 .0860  
40.000 .2129 .0043

ALPHA ( 3 ) = 4.022 BETA ( 1 ) = -7.901 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8445

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4074 .0993  
40.000 .2996 .0618

ALPHA ( 3 ) = 4.025 BETA ( 2 ) = -3.862 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8445

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3976 .1047  
40.000 .3045 .0403

ALPHA ( 3 ) = 4.023 BETA ( 3 ) = .182 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8445

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3974 .1040  
40.000 .2700 .0310

ALPHA ( 3 ) = 4.027 BETA ( 4 ) = 4.243 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8445

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3936 .1025  
40.000 .2509 .0203



DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5075

(XEB0588)

AMES 11-073(0A148) -140A/E/C/R ORB BODY FLAP LWR

ALPHA ( 3 ) = 4.033 BETA ( 5 ) = 8.290 MACH = .59644 Q = 594.20 P = 2386.1 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4048 .0909  
40.000 .2434 .0152

ALPHA ( 4 ) = 7.992 BETA ( 1 ) = -7.890 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4316 .1055  
40.000 .3278 .0577

ALPHA ( 4 ) = 7.933 BETA ( 2 ) = -3.860 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4225 .1152  
40.000 .3181 .0457

ALPHA ( 4 ) = 7.931 BETA ( 3 ) = .185 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4196 .1192  
40.000 .2937 .0416

ALPHA ( 4 ) = 7.992 BETA ( 4 ) = 4.234 MACH = .59642 Q = 594.33 P = 2386.8 RN/L = 4.8439

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4219 .1119  
40.000 .2755 .0332

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 503

AMES 11-073(0A148) -140A/B/C/R ORB BODY FLAP LWR

UNEGGED

ALPHA ( 4 ) = 7.932 BETA ( 5 ) = 8.288 MACH = .59642 Q = 594.33 P = 2385.7 RN/L = 4.8423

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4285 .1001  
 40.000 .2833 .0197

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -7.852 MACH = .59656 Q = 594.57 P = 2385.7 RN/L = 4.8423

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4531 .1210  
 40.000 .3475 .0729

ALPHA ( 5 ) = 11.978 BETA ( 2 ) = -3.840 MACH = .59655 Q = 594.57 P = 2385.7 RN/L = 4.8423

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4477 .1311  
 40.000 .3291 .0584

ALPHA ( 5 ) = 11.981 BETA ( 3 ) = .126 MACH = .59655 Q = 594.57 P = 2385.7 RN/L = 4.8423

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4527 .1356  
 40.000 .3121 .0544

ALPHA ( 5 ) = 11.977 BETA ( 4 ) = 4.246 MACH = .59655 Q = 594.57 P = 2385.7 RN/L = 4.8423

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4562 .1233  
 40.000 .3018 .0438

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6077

AMES 11-073(OA148) -140A/B/C/R ORB BODY FLAP LMR (XEB668)

ALPHA ( 0 ) = 11.963 BETA ( 5 ) = 8.308 MACH = .59656 Q = 594.57 P = 2386.7 RN/L = 4.8403

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4528 .1289  
40.000 .2799 .0307

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DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6078

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG69) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.989 BETA ( 1 ) = -3.851 MACH = .89987 Q = 599.88 P = 1058.3 RN/L = 3.6263

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .4019 .2342  
 40.000 .1346 .1624

ALPHA ( 1 ) = -3.997 BETA ( 2 ) = .189 MACH = .89987 Q = 599.88 P = 1058.3 RN/L = 3.6263

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3931 .2435  
 40.000 .2610 .1356

ALPHA ( 1 ) = -3.981 BETA ( 3 ) = 4.272 MACH = .89987 Q = 599.88 P = 1058.3 RN/L = 3.6263

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3889 .2263  
 40.000 .2526 .1187

ALPHA ( 2 ) = .008 BETA ( 1 ) = -3.868 MACH = .90190 Q = 601.65 P = 1056.6 RN/L = 3.6047

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3558 .2228  
 40.000 .2531 .1773

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BOFLAP = 22.500 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .900

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6079

ALPHA ( 2 ) = .010

BETA ( 2 ) = .177

MACH = .90190

Q = 601.65

P = 1056.6

RN/L = 3.5047

(XE8089)

ORB BODY FLAP LMR

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
.000	.3882	.2284
40.000	.2566	.1361

ALPHA ( 2 ) = .007

BETA ( 3 ) = 4.253

MACH = .90190

Q = 601.65

P = 1056.6

RN/L = 3.5047

ORB BODY FLAP LMR

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
.000	.3416	.2219
40.000	.2451	.1064

ALPHA ( 3 ) = 4.005

BETA ( 1 ) = -3.869

MACH = .90083

Q = 600.78

P = 1057.6

RN/L = 3.5915

ORB BODY FLAP LMR

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
.000	.4301	.2422
40.000	.3535	.1705

ALPHA ( 3 ) = 4.002

BETA ( 2 ) = .179

MACH = .90083

Q = 600.78

P = 1057.6

RN/L = 3.5915

ORB BODY FLAP LMR

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
.000	.4380	.2411
40.000	.3151	.1378

ALPHA ( 3 ) = 4.006

BETA ( 3 ) = 4.240

MACH = .90083

Q = 600.78

P = 1057.6

RN/L = 3.5915

ORB BODY FLAP LMR

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB	1.0180	1.0460
PHI		
.000	.4374	.2446
40.000	.2883	.1097

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6080

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8069)

ALPHA ( 4 ) = 7.976 BETA ( 1 ) = -3.869 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4991 .2594  
40.000 .3993 .1704

ALPHA ( 4 ) = 7.978 BETA ( 2 ) = .182 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4966 .2577  
40.000 .3600 .1419

ALPHA ( 4 ) = 7.979 BETA ( 3 ) = 4.241 MACH = .89993 Q = 600.24 P = 1058.8 RN/L = 3.5857

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI

.000 .5034 .2584  
40.000 .3273 .1192

ALPHA ( 5 ) = 11.950 BETA ( 1 ) = -3.853 MACH = .90010 Q = 600.36 P = 1058.5 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5439 .2684  
40.000 .4259 .1689

ALPHA ( 5 ) = 11.955 BETA ( 2 ) = .189 MACH = .90010 Q = 600.36 P = 1058.5 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5372 .2722  
40.000 .3822 .1475

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6081

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEB669)

ALPHA ( 5 ) = 11.948 BETA ( 3 ) = 4.260 MACH = .90010 Q = 600.36 P = 1059.5 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

40.000 .5404 .2726  
40.000 .3531 .1225

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6082

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XE8070) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.949 BETA ( 1 ) = -7.852 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3196 .0810  
 40.000 .2471 .0545

ALPHA ( 1 ) = -3.933 BETA ( 2 ) = -3.843 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3521 .0929  
 40.000 .2553 .0371

ALPHA ( 1 ) = -3.929 BETA ( 3 ) = .189 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3675 .0921  
 40.000 .2390 .0244

ALPHA ( 1 ) = -3.935 BETA ( 4 ) = 4.269 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .3411 .0857  
 40.000 .2224 .0223

## PARAMETRIC DATA

RUDDER = .000 SPDBRK = 55.000  
 BDFLAP = 22.500 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .600



DATE 13 FEB 76

TABULATED PRESSURE DATA - OAI48 ( AMES 11-073-1 )

PAGE 6083

AMES 11-073(OAI48) - 140A/B/C ORB BODY FLAP LWR (XEB670)

ALPHA ( 1 ) = -3.949 BETA ( 5 ) = 9.334 MACH = .59666 Q = 594.81 P = 2387.0 RN/L = 4.8517

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3199 .0720  
40.000 .2097 -.0016

ALPHA ( 2 ) = .049 BETA ( 1 ) = -7.888 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3746 .0901  
40.000 .2747 .0664

ALPHA ( 2 ) = .056 BETA ( 2 ) = -3.864 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3530 .0915  
40.000 .2926 .0407

ALPHA ( 2 ) = .058 BETA ( 3 ) = .180 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3635 .0916  
40.000 .2511 .0231

ALPHA ( 2 ) = .055 BETA ( 4 ) = 4.251 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3554 .0926  
40.000 .2326 .0111

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

PAGE 5064

AMES 11-073(0A148) -140A/B/C ORS BODY FLAP LMR

(XE8G70)

ALPHA ( 2 ) = .051 BETA ( 5 ) = 8.306 MACH = .59628 Q = 593.97 P = 2386.4 RN/L = 4.8452

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3736 .0817  
40.000 .2092 .0003

ALPHA ( 3 ) = 4.000 BETA ( 1 ) = -7.898 MACH = .59578 Q = 593.03 P = 2386.8 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4089 .0975  
40.000 .3121 .0654

ALPHA ( 3 ) = 4.002 BETA ( 2 ) = -3.861 MACH = .59578 Q = 593.03 P = 2386.8 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3850 .1022  
40.000 .3120 .0439

ALPHA ( 3 ) = 4.003 BETA ( 3 ) = .182 MACH = .59578 Q = 593.03 P = 2386.8 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3844 .1003  
40.000 .2597 .0278

ALPHA ( 3 ) = 4.003 BETA ( 4 ) = 4.239 MACH = .59578 Q = 593.03 P = 2386.8 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3948 .0978  
40.000 .2513 .0193

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6085

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LWR (XE8070)

ALPHA ( 3 ) = 4.009 BETA ( 5 ) = 8.292 MACH = .59578 Q = 593.03 P = 2386.8 RN/L = 4.8456

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3987 .0913  
40.000 .2372 .0065

ALPHA ( 4 ) = 7.945 BETA ( 1 ) = -7.890 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4291 .1056  
40.000 .3393 .0526

ALPHA ( 4 ) = 7.956 BETA ( 2 ) = -3.860 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4224 .1139  
40.000 .3131 .0476

ALPHA ( 4 ) = 7.955 BETA ( 3 ) = .181 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4193 .1094  
40.000 .2904 .0376

ALPHA ( 4 ) = 7.955 BETA ( 4 ) = 4.234 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4195 .1058  
40.000 .2742 .0296

DATE 12 FEB 76

TABULATED PRESSURE DATA - OAI48 ( AMES 11-073-1 )

PAGE 6026

AMES 11-073(OAI48) -140A/B/C ORB BODY FLAP LWR (XE8670)

ALPHA ( 4 ) = 7.954 BETA ( 3 ) = 8.280 MACH = .59630 Q = 593.97 P = 2386.4 RN/L = 4.8482

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4264 .0973
40.000	.2603 .0205

ALPHA ( 5 ) = 11.925 BETA ( 1 ) = -7.848 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4560 .1240
40.000	.3568 .0736

ALPHA ( 5 ) = 11.942 BETA ( 2 ) = -3.851 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4495 .1264
40.000	.3317 .0576

ALPHA ( 5 ) = 11.947 BETA ( 3 ) = .182 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4468 .1246
40.000	.3119 .0463

ALPHA ( 5 ) = 11.942 BETA ( 4 ) = 4.245 MACH = .59584 Q = 593.15 P = 2386.7 RN/L = 4.8434

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI	
.000	.4502 .1284
40.000	.2963 .0405

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

(XES970)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

RN/L = 4.8434

= 2386.7

P

= 593.15

Q

= .59584

MACH

= 8.309

BETA ( 5 ) = 11.935

DEPENDENT VARIABLE CP

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .4509 .1152  
40.000 .2731 .0215

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 812B

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XESG71) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.9000 IN. YMRP = .0000 IN. YO  
 BREF = 926.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.946 BETA ( 1 ) = -3.857 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9036

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.0200 .1728 .1479  
 40.0000 .0217 -.0094

ALPHA ( 2 ) = -3.940 BETA ( 2 ) = .190 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9036

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.0000 .1576 .1319  
 40.0000 .0503 .0261

ALPHA ( 3 ) = -3.946 BETA ( 3 ) = 4.272 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9036

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.0000 .1682 .1349  
 40.0000 .0419 .0316

ALPHA ( 2 ) = .016 BETA ( 1 ) = -3.873 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9036

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.0000 .2265 .1909  
 40.0000 .1134 .0745

## PARAMETRIC DATA

RUDDER = -5.000 SPDRK = 25.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = 1.500

DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 0009

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XESG71)

ALPHA ( 2 ) = .022 BETA ( 2 ) = .160 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2267 .1900  
40.000 .1010 .0855

ALPHA ( 2 ) = .018 BETA ( 3 ) = 4.248 MACH = 1.3971 Q = 600.47 P = 439.47 RN/L = 2.9038

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2259 .1892  
40.000 .1085 .0728

ALPHA ( 3 ) = 3.951 BETA ( 1 ) = -3.877 MACH = 1.3961 Q = 600.55 P = 440.19 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3149 .2559  
40.000 .1953 .1319

ALPHA ( 3 ) = 3.952 BETA ( 2 ) = .179 MACH = 1.3961 Q = 600.55 P = 440.19 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3123 .2673  
40.000 .1859 .1307

ALPHA ( 3 ) = 3.955 BETA ( 3 ) = 4.242 MACH = 1.3961 Q = 600.56 P = 440.19 RN/L = 2.9092

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3174 .2593  
40.000 .1831 .1333

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5120

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XEB371)

ALPHA ( 4 ) = 7.997 BETA ( 1 ) = -3.873 MACH = 1.3969 Q = 600.27 P = 439.47 EN/L = 2.9131

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0190 1.0460

PHI  
.000 .4168 .3453  
40.000 .2743 .1802

ALPHA ( 4 ) = 7.995 BETA ( 2 ) = .177 MACH = 1.3969 Q = 600.27 P = 439.47 EN/L = 2.9130

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4144 .3430  
40.000 .2770 .1862

ALPHA ( 4 ) = 7.882 BETA ( 3 ) = 4.237 MACH = 1.3969 Q = 600.27 P = 439.47 EN/L = 2.9130

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4189 .3450  
40.000 .2701 .2037

ALPHA ( 5 ) = 11.960 BETA ( 1 ) = -3.851 MACH = 1.3964 Q = 600.16 P = 439.71 EN/L = 2.9137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5050 .4057  
40.000 .3545 .2446

ALPHA ( 5 ) = 11.969 BETA ( 2 ) = .177 MACH = 1.3964 Q = 600.16 P = 439.71 EN/L = 2.9137

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5125 .4125  
40.000 .3623 .2604



DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6091

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LWR (XE8671)

ALPHA ( 5 ) = 11.957 BETA ( 3 ) = 4.251 MACH = 1.3964 Q = 600.16 P = 439.71 RN/L = 2.9137

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0150 1.0460

PHI

.000 .5059 .4068  
40.000 .3560 .2716

ALPHA ( 6 ) = 15.903 BETA ( 1 ) = -3.840 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5958 .4582  
40.000 .4446 .3156

ALPHA ( 6 ) = 15.917 BETA ( 2 ) = .180 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5915 .4716  
40.000 .4456 .3197

ALPHA ( 6 ) = 15.910 BETA ( 3 ) = 4.280 MACH = 1.3960 Q = 600.45 P = 440.18 RN/L = 2.9185

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5893 .4706  
40.000 .4353 .3315

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6092

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XE8G72) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. X0  
 LREF = 474.8000 IN. YMRP = .0000 IN. Y0  
 BREF = 936.0580 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA ( 1 ) = -3.944 BETA ( 1 ) = -3.854 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1795 .171  
 40.000 -.0010 -.0325

ALPHA ( 1 ) = -3.937 BETA ( 2 ) = .190 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1631 .1149  
 40.000 .0283 -.0089

ALPHA ( 1 ) = -3.943 BETA ( 3 ) = 4.266 MACH = 1.2471 Q = 599.40 P = 550.63 RN/L = 3.0068

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .1727 .1149  
 40.000 .0251 .0005

ALPHA ( 2 ) = .045 BETA ( 1 ) = -3.865 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 .2326 .1723  
 40.000 .1173 .0504

## PARAMETRIC DATA

RUDDER = -5.000 SPOBRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = 1.250

DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XE8672)

ALPHA ( 2 ) = .050 BETA ( 2 ) = .176 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2459 .1715  
40.000 .0904 .0322

ALPHA ( 2 ) = .045 BETA ( 3 ) = 4.247 MACH = 1.2470 Q = 599.89 P = 551.11 RN/L = 3.0108

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2323 .1719  
40.000 .1019 .0405

ALPHA ( 3 ) = 3.983 BETA ( 1 ) = -3.876 MACH = 1.2481 Q = 600.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3281 .2408  
40.000 .1914 .1047

ALPHA ( 3 ) = 3.983 BETA ( 2 ) = .181 MACH = 1.2481 Q = 600.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3325 .2405  
40.000 .1840 .0889

ALPHA ( 3 ) = 3.984 BETA ( 3 ) = 4.240 MACH = 1.2481 Q = 500.17 P = 550.40 RN/L = 3.0062

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3317 .2431  
40.000 .1810 .0964

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6094

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8672)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.872 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4201 .3033  
40.000 .2575 .1362

ALPHA ( 4 ) = 7.940 BETA ( 2 ) = .173 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4197 .2966  
40.000 .2574 .1386

ALPHA ( 4 ) = 7.943 BETA ( 3 ) = 4.236 MACH = 1.2470 Q = 599.90 P = 551.11 RN/L = 3.0127

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .4237 .3037  
40.000 .2579 .1464

ALPHA ( 5 ) = 12.023 BETA ( 1 ) = -3.855 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .5048 .3596  
40.000 .3300 .1837

ALPHA ( 5 ) = 12.037 BETA ( 2 ) = .182 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0163 1.0460

PHI  
.000 .4372 .3575  
40.000 .3315 .1959

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6095

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR

(XE8672)

ALPHA ( 5 ) = 12.032 BETA ( 3 ) = 4.249 MACH = 1.2460 Q = 599.73 P = 551.81 RN/L = 3.0130

SECTION : 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .5093 .3548  
+0.000 .3282 .1981

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6096

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LM

(XE8673) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0320

## PARAMETRIC DATA

RUDDER = -5.000 SPDBRK = 55.000  
 BOFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = 1.100

ALPHA ( 1 ) = -3.958 BETA ( 1 ) = -3.850 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2093 .1065  
 40.000 .0112 -.0221

ALPHA ( 1 ) = -3.953 BETA ( 2 ) = .190 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2201 .1297  
 40.000 .0526 -.0055

ALPHA ( 1 ) = -3.950 BETA ( 3 ) = 4.266 MACH = 1.1008 Q = 600.53 P = 707.91 RN/L = 3.1821

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2087 .1074  
 40.000 .0380 -.0366

ALPHA ( 2 ) = .047 BETA ( 1 ) = -3.869 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1230

## SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .1470 .1394  
 40.000 .1269 .0378

DATE 13 FEB 75

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6097

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LMR

(XE8673)

ALPHA ( 2 ) = .052 BETA ( 2 ) = .177 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1830

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2724 .1521  
40.000 .1037 .0084

ALPHA ( 2 ) = .046 BETA ( 3 ) = 4.245 MACH = 1.1000 Q = 599.94 P = 708.37 RN/L = 3.1830

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2490 .1437  
40.000 .0346 -.0150

ALPHA ( 3 ) = 4.012 BETA ( 1 ) = -3.872 MACH = 1.0998 Q = 599.99 P = 708.60 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3190 .1825  
40.000 .1811 .0787

ALPHA ( 3 ) = 4.014 BETA ( 2 ) = .182 MACH = 1.0998 Q = 599.99 P = 708.60 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3280 .1805  
40.000 .1610 .0314

ALPHA ( 3 ) = 4.006 BETA ( 3 ) = 4.238 MACH = 1.0998 Q = 599.99 P = 708.60 RN/L = 3.1803

SECTION ( 1 ) BODY FLAP LOWER  
DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3238 .1881  
40.000 .1490 .0113

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6398

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEBG73)

ALPHA ( 4 ) = 7.976 BETA ( 1 ) = -3.868 MACH = 1.1000 Q = 599.94 P = 708.36 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3937 .2242  
40.000 .2225 .0891

ALPHA ( 4 ) = 7.984 BETA ( 2 ) = .174 MACH = 1.1000 Q = 599.94 P = 707.36 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4025 .2282  
40.000 .2230 .0699

ALPHA ( 4 ) = 7.984 BETA ( 3 ) = 4.233 MACH = 1.1000 Q = 599.94 P = 708.36 RN/L = 3.1794

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4033 .2306  
40.000 .2163 .0536

ALPHA ( 5 ) = 12.067 BETA ( 1 ) = -3.848 MACH = 1.0997 Q = 599.84 P = 708.61 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4770 .2724  
40.000 .2798 .1214

ALPHA ( 5 ) = 12.077 BETA ( 2 ) = .180 MACH = 1.0997 Q = 599.84 P = 708.61 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4766 .2705  
40.000 .2875 .0995



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6099

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8G73)

ALPHA ( 5 ) = 12.075 BETA ( 3 ) = 4.245 MACH = 1.0997 Q = 599.84 P = 708.61 RN/L = 3.1785

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0480

PHI

.000 .4781 .2693  
40.000 .2807 .0996

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5100

AMES 11-07310A148) -140A/B/C ORB BODY FLAP LWR

(XE8674) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.9000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -3.854 MACH = .90080 Q = 600.60 P = 1057.3 RN/L = 3.5738

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2743 .1095  
 40.000 .0514 .0202

ALPHA ( 1 ) = -3.915 BETA ( 2 ) = .189 MACH = .90080 Q = 600.60 P = 1057.3 RN/L = 3.5738

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2763 .1166  
 40.000 .1302 .0236

ALPHA ( 1 ) = -3.961 BETA ( 3 ) = 4.266 MACH = .90080 Q = 600.60 P = 1057.3 RN/L = 3.5738

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2659 .1014  
 40.000 .1414 .0147

ALPHA ( 2 ) = .055 BETA ( 1 ) = -3.868 MACH = .90127 Q = 600.67 P = 1056.4 RN/L = 3.5726

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2581 .1043  
 40.000 .1299 .0369

## PARAMETRIC DATA

RUDDER = -5.000 SPDRRK = 55.000  
 BDFLAP = 16.300 L-ELVN = -10.000  
 R-ELVN = -10.000 MACH = .900

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6101

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8674)

ALPHA ( 2 ) = .024 BETA ( 2 ) = .180 MACH = .90127 Q = 600.67 P = 1056.4 RN/L = 3.5728

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2738 .1105  
40.000 .1398 .0296

ALPHA ( 2 ) = .055 BETA ( 3 ) = 4.248 MACH = .90127 Q = 600.67 P = 1056.4 RN/L = 3.5726

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2547 .1049  
40.000 .1418 .0026

ALPHA ( 3 ) = 4.001 BETA ( 1 ) = -3.875 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .3207 .1263  
40.000 .2052 .0593

ALPHA ( 3 ) = 4.079 BETA ( 2 ) = .183 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .3196 .1248  
40.000 .1900 .0362

ALPHA ( 3 ) = 4.001 BETA ( 3 ) = 4.242 MACH = .90140 Q = 601.01 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 .3253 .1243  
40.000 .1735 .0176ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6102

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XEBG74)

ALPHA ( 4 ) = 7.933 BETA ( 1 ) = -3.872 MACH = .90130 Q = 600.85 P = 1056.5 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3751 .1399  
40.000 .2590 .0550

ALPHA ( 4 ) = 8.028 BETA ( 2 ) = .177 MACH = .90130 Q = 600.85 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3595 .1398  
40.000 .2331 .0410

ALPHA ( 4 ) = 8.031 BETA ( 3 ) = 4.235 MACH = .90130 Q = 600.85 P = 1056.6 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3785 .1394  
40.000 .2113 .0213

ALPHA ( 5 ) = 11.980 BETA ( 1 ) = -3.859 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4065 .1524  
40.000 .2793 .0708

ALPHA ( 5 ) = 12.020 BETA ( 2 ) = .183 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5829

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .4034 .1576  
40.000 .2468 .0510

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5103

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEBG74)

ALPHA ( 5 ) = 12.024 BETA ( 3 ) = 4.256 MACH = .90157 Q = 601.36 P = 1056.9 RN/L = 3.5329

SECTION : 11 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PH:

.000 .4081 .1530  
40.000 .2212 .0284

DATE 15 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5124

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XEE875) 1 05 1.0 75

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0380 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

RUDGER = -5.000 SPDERK = 55.000  
 BDFLAP = 16.300 U-ELVN = -10.000  
 R-ELVN = -10.000 WACH = .000

ALPHA ( 1 ) = -3.999 BETA ( 1 ) = -7.854 MACH = .59648 Q = 594.32 P = 2385.4 RN/L = 4.9575

## DEPENDENT VARIABLE CP

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .2022 -.0104  
 40.000 .0933 -.0432

ALPHA ( 1 ) = -3.939 BETA ( 2 ) = -3.848 MACH = .59648 Q = 594.32 P = 2385.4 RN/L = 4.9575

## DEPENDENT VARIABLE CP

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .2271 .0055  
 40.000 .1315 -.0434

ALPHA ( 1 ) = -3.933 BETA ( 3 ) = .197 MACH = .59648 Q = 594.32 P = 2385.4 RN/L = 4.9575

## DEPENDENT VARIABLE CP

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .2339 .0059  
 40.000 .1170 -.0452

ALPHA ( 1 ) = -3.926 BETA ( 4 ) = 4.265 MACH = .59548 Q = 594.32 P = 2386.4 RN/L = 4.9575

## DEPENDENT VARIABLE CP

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI  
 .000 .2142 -.0102  
 40.000 .1145 -.0504

## PARAMETRIC DATA

DATE 13 FEB 75

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 5105

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LMR

(XE8G75)

ALPHA ( 1 ) = -3.941 BETA ( 5 ) = 8.332 MACH = .59648 Q = 594.32 P = 2386.4 RN/L = 4.8575

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000

.2008 -.0228

40.000 .0961 -.0538

ALPHA ( 2 ) = .043 BETA ( 1 ) = -7.890 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000

.2406 -.0074

40.000 .1223 -.0296

ALPHA ( 2 ) = .091 BETA ( 2 ) = -3.863 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000

.2305 -.0009

40.000 .1519 -.0384

ALPHA ( 2 ) = .092 BETA ( 3 ) = .181 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000

.2349 .0041

40.000 .1278 -.0469

ALPHA ( 2 ) = .077 BETA ( 4 ) = 4.247 MACH = .59624 Q = 593.85 P = 2386.3 RN/L = 4.8579

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000

.2316 -.0049

40.000 .1145 -.0501

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6108

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8675)

ALPHA ( 2 ) = .073 BETA ( 5 ) = 8.305 MACH = .59624 Q = 594.21 P = 2386.3 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2380 -.0153  
40.000 .1046 -.0542

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -7.904 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2532 -.0029  
40.000 .1531 -.0212

ALPHA ( 3 ) = 4.026 BETA ( 2 ) = -3.864 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2533 -.0072  
40.000 .1694 -.0331

ALPHA ( 3 ) = 4.153 BETA ( 3 ) = .177 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2524 -.0105  
40.000 .1457 -.0429

ALPHA ( 3 ) = 4.012 BETA ( 4 ) = 4.240 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2535 -.0519  
40.000 .1309 -.0514



DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8675)  
ALPHA ( 3 ) = 4.017 BETA ( 5 ) = 8.288 MACH = .59640 Q = 594.21 P = 2386.5 RN/L = 4.8659

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2590 -.0109  
40.000 .1252 -.0540

ALPHA ( 4 ) = 7.959 BETA ( 1 ) = -7.893 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8657

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2847 .0129  
40.000 .1832 -.0149

ALPHA ( 4 ) = 7.971 BETA ( 2 ) = -3.863 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8657

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2736 .0211  
40.000 .1805 -.0315

ALPHA ( 4 ) = 9.077 BETA ( 3 ) = .178 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8657

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2838 .0213  
40.000 .1595 -.0325

ALPHA ( 4 ) = 8.079 BETA ( 4 ) = 4.235 MACH = .59626 Q = 593.97 P = 2386.7 RN/L = 4.8657

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .2827 .0143  
40.000 .1572 -.0325

DATE 13 FEB 75

TABULATED PRESSURE DATA - 04148 ( AMES 11-073-1 )

PAGE 5109

AMES 11-073(04148) -140A/B/C ORB BODY FLAP LWR (XE8675)

ALPHA ( 4 ) = 9.076 BETA ( 5 ) = 8.290 MACH = .59626 Q = 594.09 P = 2386.7 RN/L = 4.8657

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .2840 .0021  
40.000 .1439 -.0351

ALPHA ( 5 ) = 11.984 BETA ( 1 ) = -7.850 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3054 .0283  
40.000 .2111 .0061

ALPHA ( 5 ) = 12.003 BETA ( 2 ) = -3.840 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3001 .0389  
40.000 .1959 -.0068

ALPHA ( 5 ) = 12.005 BETA ( 3 ) = 1.800 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3090 .0395  
40.000 .2000 -.0022

ALPHA ( 5 ) = 12.057 BETA ( 4 ) = 1.244 MACH = .59536 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION 1 BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 .3155 .0247  
40.000 .1900 -.0011

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6105

(XEBG75)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR

ALPHA ( 5 ) = 12.114 BETA ( 5 ) = 8.307 MACH = .59636 Q = 594.09 P = 2386.3 RN/L = 4.8671

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 .3338 .0165  
40.000 .1577 -.0406

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6110

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LMR (XE8376) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 935.0380 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.004 BETA ( 1 ) = -3.853 MACH = 1.3930 Q = 598.57 P = 440.65 RN/L = 2.9057

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4.382 -4.4511  
 40.000 -3.989 -3.321

ALPHA ( 1 ) = -4.001 BETA ( 2 ) = 191 MACH = 1.3930 Q = 598.57 P = 440.65 RN/L = 2.9057

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4.395 -4.4558  
 40.000 -3.980 -3.3262

ALPHA ( 1 ) = -3.983 BETA ( 3 ) = 4.275 MACH = 1.3930 Q = 598.57 P = 440.55 RN/L = 2.9057

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4.480 -4.4567  
 40.000 -4.074 -3.3286

ALPHA ( 2 ) = .029 BETA ( 1 ) = -3.865 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -4.4038 -4.4185  
 40.000 -4.5870 -4.2971

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = 1.400

DATE 13 FEB 76

TABULATED PRESSURE DATA - CA148 ( AMES 11-073-1 )

PAGE 6111

AMES 11-073(CA148 -140A/B/C - ORB BODY FLAP LWR

(XE8676)

ALPHA ( 2 ) = .033 BETA ( 2 ) = .181 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4041 -.4219  
40.000 -.3847 -.3087

ALPHA ( 2 ) = .029 BETA ( 3 ) = 4.255 MACH = 1.3913 Q = 598.64 P = 441.83 RN/L = 2.9093

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4181 -.4349  
40.000 -.3873 -.3088

ALPHA ( 3 ) = 3.961 BETA ( 1 ) = -3.871 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3734 -.3851  
40.000 -.3727 -.2747

ALPHA ( 3 ) = 3.962 BETA ( 2 ) = .187 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3718 -.3659  
40.000 -.3629 -.2834

ALPHA ( 3 ) = 3.963 BETA ( 3 ) = 4.246 MACH = 1.3919 Q = 599.88 P = 442.29 RN/L = 2.9174

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3787 -.3954  
40.000 -.3569 -.2789

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 611E

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XEBG76)

ALPHA ( 4 ) = 7.887 BETA ( 1 ) = -3.866 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3468 -.3619  
40.000 -.3322 -.2496

ALPHA ( 4 ) = 7.964 BETA ( 2 ) = .189 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3448 -.3563  
40.000 -.3388 -.2563

ALPHA ( 4 ) = 7.961 BETA ( 3 ) = 4.247 MACH = 1.3932 Q = 600.00 P = 441.59 RN/L = 2.9153

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3508 -.3504  
40.000 -.3436 -.2711

ALPHA ( 5 ) = 11.871 BETA ( 1 ) = -3.849 MACH = 1.3930 Q = 600.10 P = 441.32 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3209 -.3321  
40.000 -.3221 -.2159

ALPHA ( 5 ) = 11.913 BETA ( 2 ) = .191 MACH = 1.3930 Q = 600.10 P = 441.82 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3147 -.3243  
40.000 -.3322 -.2433

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE6676)

ALPHA ( 5 ) = 11.908 BETA ( 3 ) = 4.262 MACH = 1.3930 Q = 600.10 P = 441.82 RN/L = 2.9227

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -.3159 -.3243

40.000 -.3283 -.2640

ALPHA ( 6 ) = 15.905 BETA ( 1 ) = -3.830 MACH = 1.3921 Q = 600.28 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -.2920 -.2992

40.000 -.3305 -.2162

ALPHA ( 6 ) = 15.917 BETA ( 2 ) = .190 MACH = 1.3921 Q = 600.28 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -.2947 -.2998

40.000 -.3249 -.2534

ALPHA ( 6 ) = 15.907 BETA ( 3 ) = 4.290 MACH = 1.3921 Q = 600.28 P = 442.53 RN/L = 2.9208

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI .000 -.2808 -.2959

40.000 -.3237 -.2878

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0500 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.016 BETA ( 1 ) = -3.849 MACH = 1.2454  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -5417 -5604  
 40.000 -4895 -3641

ALPHA ( 1 ) = -4.011 BETA ( 2 ) = .186 MACH = 1.2454  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -5478 -5699  
 40.000 -4390 -3752

ALPHA ( 1 ) = -4.020 BETA ( 3 ) = 4.275 MACH = 1.2454  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -5590 -5794  
 40.000 -4772 -3863

ALPHA ( 2 ) = .012 BETA ( 1 ) = -3.863 MACH = 1.2451  
 SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -5024 -5192  
 40.000 -4438 -3383

PARAMETRIC DATA

RUDDER = -10.000 SPORX = .000  
 BDFLAP = -11.700 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = 1.250

P = 599.63 Q = 599.63 RN/L = 3.0204

P = 599.63 Q = 599.63 RN/L = 3.0204

P = 599.63 Q = 599.63 RN/L = 3.0204

P = 599.58 Q = 599.51 RN/L = 3.0193



DATE 13 FEB 76 TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG77)  
ALPHA ( 2 ) = .014 BETA ( 2 ) = .176 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0183

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5023 -.5320  
40.000 -.4525 -.3493

ALPHA ( 2 ) = .026 BETA ( 3 ) = 4.255 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0183

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.5200 -.5390  
40.000 -.4702 -.3564

ALPHA ( 3 ) = 3.997 BETA ( 1 ) = -3.868 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4702 -.4860  
40.000 -.4379 -.3193

ALPHA ( 3 ) = 3.988 BETA ( 2 ) = .182 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4719 -.4945  
40.000 -.4394 -.3221

ALPHA ( 3 ) = 3.933 BETA ( 3 ) = 4.246 MACH = 1.2451 Q = 599.58 P = 552.51 RN/L = 3.0187

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -.4809 -.5020  
40.000 -.4453 -.3230

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG77)

ALPHA ( 4 ) = 7.974 BETA ( 1 ) = -3.859 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4470 -.4609  
40.000 -.4010 -.2935

ALPHA ( 4 ) = 7.979 BETA ( 2 ) = .184 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4391 -.4604  
40.000 -.4177 -.2974

ALPHA ( 4 ) = 7.978 BETA ( 3 ) = 4.242 MACH = 1.2449 Q = 599.64 P = 552.75 RN/L = 3.0238

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4458 -.4676  
40.000 -.4314 -.3123

ALPHA ( 5 ) = 11.961 BETA ( 1 ) = -3.847 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.44251 -.4388  
40.000 -.3790 -.2727

ALPHA ( 5 ) = 11.970 BETA ( 2 ) = .192 MACH = 1.2454 Q = 599.63 P = 552.28 RN/L = 3.0229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.44147 -.4353  
40.000 -.4214 -.2960

DATE 13 FEB 75

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG77)

ALPHA ( 5 ) = 11.952 BETA ( 3 ) = 4.260 MACH = 1.2454 Q = 599.63 P = 552.22 RNL = 3.2229

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.003 -.4195 -.4399  
40.003 -.4205 -.2961

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DATE 12 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 0103

AMES 11-073(0A148) -140A/B/C OR3 BODY FLAP LWP

INSECTED 15 AUG 76

## REFERENCE DATA

SREF = 2630.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
LEEF = 174.8200 IN. YMRP = .0000 IN. YO  
BREF = 936.0590 IN. ZMRP = 375.0000 IN. ZO  
SCALE = .0300

ALPHA ( 1 ) = -4.082 BETA ( 1 ) = -3.838 MACH = 1.0993 Q = 599.81 P = 709.15 RN/L = 3.1896

## SECTION 1 ( BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.5316 -1.6550  
40.000 -1.4498 -1.5707

ALPHA ( 2 ) = -4.059 BETA ( 2 ) = .195 MACH = 1.0993 Q = 599.81 P = 709.15 RN/L = 3.1896

## SECTION 1 ( BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.5356 -1.7031  
40.000 -1.5729 -1.9068

ALPHA ( 3 ) = -4.055 BETA ( 3 ) = 4.277 MACH = 1.0993 Q = 599.81 P = 709.15 RN/L = 3.1896

## SECTION 1 ( BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.7113 -1.6701  
40.000 -1.5804 -1.4599

ALPHA ( 2 ) = .040 BETA ( 1 ) = -3.863 MACH = 1.0990 Q = 599.71 P = 709.30 RN/L = 3.1896

## SECTION 1 ( BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
.000 -1.6616 -1.5441  
40.000 -1.4498 -1.3627

## PARAMETERED DATA

RUGGER = -10.000 SPOERK = .000  
BOFLAP = -11.700 LELVN = .000  
R-ELVN = -10.000 PACE = .000

DATE 13 FEB 75

TABULATED PRESSURE DATA - O.

1-073-1 )

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AMES 11-07310A1

(XE8678)

URB BODY FLAP LWR

ALPHA ( 2 ) = .041 BETA ( 2 ) = .186 MACH = 1.036

Q = 599.71 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C<sub>P</sub>

X/LB 1.0180 1.0460

PHI  
.000 -.6530 -.6826  
40.000 -.4621 -.3800

ALPHA ( 2 ) = .036 BETA ( 3 ) = 4.252 MACH = 1.0990

Q = 599.71 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C<sub>P</sub>

X/LB 1.0180 1.0460

PHI  
.000 -.6762 -.6863  
40.000 -.5357 -.4180

ALPHA ( 3 ) = 4.006 BETA ( 1 ) = -3.864 MACH = 1.0989

Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C<sub>P</sub>

X/LB 1.0180 1.0460

PHI  
.000 -.6421 -.6315  
40.000 -.4496 -.3592

ALPHA ( 3 ) = 4.004 BETA ( 2 ) = .194 MACH = 1.0989

Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C<sub>P</sub>

X/LB 1.0180 1.0460

PHI  
.000 -.6393 -.6582  
40.000 -.4604 -.3539

ALPHA ( 3 ) = 4.004 BETA ( 3 ) = 4.242 MACH = 1.0989

Q = 599.58 P = 709.30 RN/L = 3.1896

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE C<sub>P</sub>

X/LB 1.0180 1.0460

PHI  
.000 -.6494 -.6719  
40.000 -.5223 -.3813

DATE 13 FE 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG78)

ALPHA ( 4 ) = 8.022 BETA ( 1 ) = -3.857 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6095 -.6028  
40.000 -.4439 -.3325

ALPHA ( 4 ) = 8.002 BETA ( 2 ) = .186 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6145 -.6351  
40.000 -.4502 -.3265

ALPHA ( 4 ) = 7.997 BETA ( 3 ) = 4.238 MACH = 1.1003 Q = 600.35 P = 708.37 RN/L = 3.1925

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6193 -.6411  
40.000 -.5158 -.3699

ALPHA ( 5 ) = 11.963 BETA ( 1 ) = -3.838 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1917

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.5878 -.5930  
40.000 -.4383 -.3234

ALPHA ( 5 ) = 11.967 BETA ( 2 ) = .194 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1917

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.5927 -.6105  
40.000 -.4385 -.3250

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6121

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG78)

ALPHA ( 5 ) = 11.958 BETA ( 3 ) = 4.256 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1917

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

40.000 -.5959 -.6136

40.000 -.5252 -.3694

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5122

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBG79) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -4.051 BETA ( 1 ) = -3.840 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.4443 -.3155  
 40.000 -.3430 -.2816

ALPHA ( 1 ) = -4.055 BETA ( 2 ) = .202 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.4313 -.3084  
 40.000 -.3282 -.2487

ALPHA ( 1 ) = -4.070 BETA ( 3 ) = 4.293 MACH = .89997 Q = 600.24 P = 1058.8 RN/L = 3.5827

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.4473 -.3055  
 40.000 -.3265 -.2164

ALPHA ( 2 ) = .045 BETA ( 1 ) = -3.859 MACH = .89957 C = 599.75 P = 1058.8 RN/L = 3.5771

## SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.4408 -.3236  
 40.000 -.3429 -.2854

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = .900



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORB BODY FLAP LWR (XE8679)

ALPHA ( 2 ) = .042 BETA ( 2 ) = .192 MACH = .89957 Q = 599.75 P = 1058.8 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4382 -.3236  
40.000 -.3167 -.2394

ALPHA ( 2 ) = .032 BETA ( 3 ) = 4.260 MACH = .89957 Q = 599.75 P = 1058.8 RN/L = 3.5771

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4790 -.3582  
40.000 -.3454 -.2156

ALPHA ( 3 ) = 4.023 BETA ( 1 ) = -3.861 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4559 -.3224  
40.000 -.3595 -.2663

ALPHA ( 3 ) = 4.017 BETA ( 2 ) = .197 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4485 -.3185  
40.000 -.3190 -.2168

ALPHA ( 3 ) = 4.017 BETA ( 3 ) = 4.251 MACH = .90070 Q = 600.44 P = 1057.3 RN/L = 3.5793

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4871 -.3320  
40.000 -.3506 -.2191

DATE 18 FEB 76

CALCULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 512-

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8679)

ALPHA ( 4 ) = 7.937 BETA ( 1 ) = -3.857 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4933 -1.3445  
40.000 -1.3889 -1.2423

ALPHA ( 4 ) = 7.934 BETA ( 2 ) = .192 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.4968 -1.3458  
40.000 -1.3942 -1.2045

ALPHA ( 4 ) = 7.926 BETA ( 3 ) = 4.250 MACH = .90017 Q = 600.17 P = 1058.1 RN/L = 3.5825

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.5068 -1.3675  
40.000 -1.3970 -1.1940

ALPHA ( 5 ) = 11.959 BETA ( 1 ) = -3.847 MACH = .89890 Q = 599.14 P = 1059.2 RN/L = 3.5729

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0120 1.0450

PHI

.000 -1.5159 -1.4030  
40.000 -1.4039 -1.2632

ALPHA ( 5 ) = 11.975 BETA ( 2 ) = .196 MACH = .89890 Q = 599.14 P = 1059.2 RN/L = 3.5729

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -1.5048 -1.4099  
40.000 -1.4592 -1.2242

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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(XEBG79)

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR

ALPHA ( 5 ) = 11.956 BETA ( 3 ) = 4.265 MACH = .89890 Q = 599.14 P = 1059.2 RV/L = 3.5789

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI:

.000 -.5624 -.4299  
40.000 -.4911 -.2389

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OF POOR QUALITY

AMES 11-07310A148) -140A/B/C ORB BODY FLAP LWB

(X58000) (05 40 75)

## REFERENCE DATA

SREF = 2600.0000 93.171 XMRP = 1076.6800 IN. X0  
 LREF = 674.8000 IN. YMRP = .0000 IN. Y0  
 SREF = 936.0680 IN. ZMRP = 375.0000 IN. Z0  
 SCALE = .0300

ALPHA (1) = -4.078 BETA (1) = -7.858 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8298

## SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3599 -1.2651  
 40.000 -1.3248 -1.3366

ALPHA (1) = -4.052 BETA (2) = -3.836 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8298

## SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3593 -1.2502  
 40.000 -1.3556 -1.2737

ALPHA (1) = -4.061 BETA (3) = .183 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8298

## SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3566 -1.2513  
 40.000 -1.2972 -1.2307

ALPHA (1) = -3.957 BETA (4) = 4.258 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8298

## SECTION 1 BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -1.3588 -1.2499  
 40.000 -1.2534 -1.2005

## PARAMETRIC DATA

RUDDER = -10.000 SPDBRX = .000  
 BDFLAP = -11.700 L-ELVN = 10.000  
 R-ELVN = -10.000 MACH = .500

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( ANES 11-073-1 )

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ANES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XE8686)

ALPHA ( 1 ) = -3.995 BETA ( 5 ) = 8.327 MACH = .59728 Q = 595.86 P = 2386.0 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3595 -.2491  
40.000 -.2317 -.1772

ALPHA ( 2 ) = -.051 BETA ( 1 ) = -7.896 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3765 -.2599  
40.000 -.3208 -.3297

ALPHA ( 2 ) = -.008 BETA ( 2 ) = -3.854 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3690 -.2509  
40.000 -.2925 -.2622

ALPHA ( 2 ) = .029 BETA ( 3 ) = .176 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3758 -.2532  
40.000 -.2835 -.2219

ALPHA ( 2 ) = .052 BETA ( 4 ) = 4.239 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3572 -.2496  
40.000 -.2512 -.1973

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XSES380)

ALPHA ( 2 ) = .008 BETA ( 5 ) = 8.284 MACH = .59646 Q = 594.33 P = 2386.5 RN/L = 4.8222

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3550 -1.2498  
40.000 -1.2331 -1.1730

ALPHA ( 3 ) = 3.933 BETA ( 1 ) = -7.902 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3945 -1.2541  
40.000 -1.3113 -1.3231

ALPHA ( 3 ) = 3.907 BETA ( 2 ) = -3.866 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3769 -1.2549  
40.000 -1.2976 -1.3326

ALPHA ( 3 ) = 3.984 BETA ( 3 ) = .180 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3694 -1.2467  
40.000 -1.2743 -1.3117

ALPHA ( 3 ) = 3.998 BETA ( 4 ) = 4.226 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8207

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0450

PHI

.000 -1.3716 -1.2470  
40.000 -1.2477 -1.1663

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEB680)

ALPHA ( 3 ) = 4.029 BETA ( 5 ) = 8.276 MACH = .59628 Q = 593.97 P = 2386.5 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3708 -.2410  
40.000 -.2315 -.1624

ALPHA ( 4 ) = 7.903 BETA ( 1 ) = -7.896 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3758 -.2417  
40.000 -.2999 -.2874

ALPHA ( 4 ) = 7.912 BETA ( 2 ) = -3.851 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3693 -.2372  
40.000 -.2808 -.2249

ALPHA ( 4 ) = 8.059 BETA ( 3 ) = .184 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3702 -.2404  
40.000 -.2673 -.1972

ALPHA ( 4 ) = 8.016 BETA ( 4 ) = 4.233 MACH = .59626 Q = 593.85 P = 2386.1 RN/L = 4.8197

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3767 -.2497  
40.000 -.2365 -.1743

DATE 12 FEB 73

CALCULATED PRESSURE DATA - 0A148 (AMES 11-073-1)

PAGE 0002

AMES 11-073(0A148) -140A/B/C CRB BODY FLAP LWR

(X25555)

ALPHA (4) = 8.043 BETA (5) = 8.283 MACH = .59626 Q = 593.85 P = 2385.7 RN/L = 4.5197

SECTION (1) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3717 -1.2439  
40.000 -1.2507 -1.1533

ALPHA (5) = 11.974 BETA (1) = -7.860 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.5199

SECTION (1) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.2780 -1.2333  
40.000 -1.2938 -1.2530

ALPHA (5) = 11.983 BETA (2) = -3.842 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.5199

SECTION (1) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3516 -1.2331  
40.000 -1.2529 -1.2068

ALPHA (5) = 12.035 BETA (3) = 1.179 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.5199

SECTION (1) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3619 -1.2392  
40.000 -1.2376 -1.1723

ALPHA (5) = 12.027 BETA (4) = 4.242 MACH = .59650 Q = 594.19 P = 2385.7 RN/L = 4.5199

SECTION (1) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -1.3645 -1.2327  
40.000 -1.2220 -1.1454



DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAISE 5131

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8380)

ALPHA ( 5 ) = 12.061 BETA ( 5 ) = 8.297 MACH = .59650 Q = 524.19 P = 2395.7 PV/L = 4.8199

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3451 -.2333  
40.000 -.1974 -.1344

DATE 13 FEB 78

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5132

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR

(XESS81) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.955 BETA ( 1 ) = .178 MACH = 1.3929 Q = 599.69 P = 441.59 RN/L = 2.9281

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4472 -.4600  
 40.000 -.4614 -.3658

ALPHA ( 2 ) = .028 BETA ( 1 ) = .177 MACH = 1.3894 Q = 599.62 P = 443.71 RN/L = 2.9315

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.4171 -.4309  
 40.000 -.4344 -.3320

ALPHA ( 3 ) = 3.945 BETA ( 1 ) = -3.872 MACH = 1.3917 Q = 599.67 P = 442.30 RN/L = 2.9226

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.3848 -.4000  
 40.000 -.4313 -.3288

ALPHA ( 3 ) = 3.983 BETA ( 2 ) = .185 MACH = 1.3917 Q = 599.67 P = 442.30 RN/L = 2.9226

SECTION ( 1 ) BODY FLAP LOWER

X/LB 1.0180 1.0460

PHI

.000 -.3777 -.3922  
 40.000 -.4093 -.3082

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
 BOFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = 1.400

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-07310A148) -140A/B/C ORB BODY FLAP LWR (XE8681)

ALPHA ( 3 ) = 3.932 BETA ( 3 ) = 4.246 MACH = 1.3917 Q = 599.67 P = 442.30 RN/L = 2.9226

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3738 -.3916  
40.000 -.3897 -.2867

ALPHA ( 4 ) = 7.903 BETA ( 1 ) = .179 MAC4 = 1.3906 Q = 599.65 P = 443.00 RN/L = 2.9169

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3478 -.3616  
40.000 -.3947 -.2831

ALPHA ( 5 ) = 11.906 BETA ( 1 ) = -3.868 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9079

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3259 -.3384  
40.000 -.3909 -.2739

ALPHA ( 5 ) = 11.898 BETA ( 2 ) = .169 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.5 B

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3187 -.3349  
40.000 -.3732 -.2429

ALPHA ( 5 ) = 11.887 BETA ( 3 ) = 4.249 MACH = 1.3903 Q = 599.44 P = 443.00 RN/L = 2.9079

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3196 -.3409  
40.000 -.3532 -.2741

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6134

AMES 11-073(0A148) --140A/B/C ORB BODY FLAP LWR (XE8681)

ALPHA ( 6 ) = 15.870 BETA ( 1 ) = .160 MACH = 1.3887 Q = 599.91 P = 444.41 RN/L = 2.9065

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.2884 -.3097  
40.000 -.3298 -.3076

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5135

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8682) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -.4001 BETA ( 1 ) = .172 MACH = 1.2466 Q = 600.03 P = 551.58 RN/L = 3.0277

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.5553 -.5742  
 40.000 -.5365 -.4279

ALPHA ( 2 ) = .004 BETA ( 1 ) = .171 MACH = 1.2457 Q = 599.87 P = 552.28 RN/L = 3.0295

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.5167 -.5384  
 40.000 -.5021 -.3982

ALPHA ( 3 ) = 3.910 BETA ( 1 ) = -3.880 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4870 -.5073  
 40.000 -.5114 -.3762

ALPHA ( 3 ) = 3.950 BETA ( 2 ) = .192 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.4789 -.5034  
 40.000 -.4729 -.3525

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = 1.250

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DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6135

AMES 11-073(0A148) - (40A/B/C ORB BODY FLAP LMR (XEB682)

ALPHA ( 3 ) = 3.915 BETA ( 3 ) = 4.246 MACH = 1.2454 Q = 599.82 P = 552.51 RN/L = 3.0275

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4761 -.4998  
40.000 -.4272 -.3380

ALPHA ( 4 ) = 7.875 BETA ( 1 ) = .170 MACH = 1.2457 Q = 599.87 P = 552.28 RN/L = 3.0295

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4460 -.4692  
40.000 -.4349 -.3169

ALPHA ( 5 ) = 11.893 BETA ( 1 ) = -3.862 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4304 -.4478  
40.000 -.4556 -.3128

ALPHA ( 5 ) = 11.948 BETA ( 2 ) = .178 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4257 -.4458  
40.000 -.4356 -.2999

ALPHA ( 5 ) = 11.969 BETA ( 3 ) = 4.251 MACH = 1.2456 Q = 600.06 P = 552.51 RN/L = 3.0278

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4272 -.4531  
40.000 -.4536 -.3156

DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 5137

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEBG83) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.6900 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 SREF = 936.0690 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.943 BETA ( 1 ) = .171 MACH = 1.0992 Q = 599.30 P = 708.59 RN/L = 3.1942

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.6984 -.7175  
 40.000 -.5437 -.4588

ALPHA ( 2 ) = .065 BETA ( 1 ) = .171 MACH = 1.0980 Q = 599.15 P = 710.01 RN/L = 3.1985

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.6941 -.7015  
 40.000 -.5337 -.4449

ALPHA ( 3 ) = 3.859 BETA ( 1 ) = -3.876 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.6667 -.6870  
 40.000 -.5488 -.4499

ALPHA ( 3 ) = 3.908 BETA ( 2 ) = .189 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI  
 .000 -.6521 -.6731  
 40.000 -.5190 -.4178

## PARAMETRIC DATA

RUDDER = 10.000 SPCBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = 1.100

DATE 13 FEB 76

TABULATED PRESSURE DATA - OA148 ( AMES 11-073-1 )

PAGE 6139

AMES 11-073(OA148) -140A/B/C ORB BODY FLAP LWR

(XE8683)

ALPHA ( 3 ) = 3.913 BETA ( 3 ) = 4.243 MACH = 1.0981 Q = 598.75 P = 709.30 RN/L = 3.1983

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6561 -.6513  
40.000 -.5186 -.4274

ALPHA ( 4 ) = 8.023 BETA ( 1 ) = .173 MACH = 1.0972 Q = 598.87 P = 710.71 RN/L = 3.1996

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6287 -.6497  
40.000 -.5177 -.3997

ALPHA ( 5 ) = 11.886 BETA ( 1 ) = -3.856 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6094 -.6295  
40.000 -.5358 -.4346

ALPHA ( 5 ) = 11.964 BETA ( 2 ) = .179 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6028 -.6251  
40.000 -.5126 -.3911

ALPHA ( 5 ) = 11.963 BETA ( 3 ) = 4.251 MACH = 1.0968 Q = 598.64 P = 710.95 RN/L = 3.1978

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.6005 -.6200  
40.000 -.5185 -.4070



DATE 13 FEB 76

TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

PAGE 6139

AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEBG84) ( 05 AUG 75 )

## REFERENCE DATA

SREF = 2692.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.8000 IN. YMRP = .0000 IN. YO  
 BRPF = 936.0000 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.965 BETA ( 1 ) = .165 MACH = .89930 Q = 599.63 P = 1059.2 RN/L = 3.5885

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4571 -.3295  
40.000 -.3545 -.2494

ALPHA ( 2 ) = .057 BETA ( 1 ) = .165 MACH = .89770 Q = 598.28 P = 1060.7 RN/L = 3.5863

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4491 -.3264  
40.000 -.3520 -.2621

ALPHA ( 3 ) = 3.889 BETA ( 1 ) = -3.885 MACH = .89803 Q = 598.39 P = 1060.0 RN/L = 3.5814

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.5030 -.3557  
40.000 -.4161 -.2723

ALPHA ( 3 ) = 4.092 BETA ( 2 ) = .164 MACH = .89803 Q = 598.38 P = 1060.0 RN/L = 3.5814

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4655 -.3427  
40.000 -.3704 -.2569

## PARAMETRIC DATA

RUDDER = 10.000 SPOBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = .900

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XEBGB4)

ALPHA ( 3 ) = 3.996 BETA ( 3 ) = 4.248 MACH = .89803 Q = 598.38 P = 1060.0 RN/L = 3.5814

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.4585 -.3247  
40.000 -.3336 -.2301

ALPHA ( 4 ) = 8.008 BETA ( 1 ) = .163 MACH = .89820 Q = 598.16 P = 1059.3 RN/L = 3.5792

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.5079 -.3803  
40.000 -.3812 -.2613

ALPHA ( 5 ) = 11.969 BETA ( 1 ) = .169 MACH = .870 Q = 597.36 P = 1061.4 RN/L = 3.5769

SECTION ( 1 ) BODY FLAP LOWER DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.5915 -.4190  
40.000 -.4452 -.2696

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LMR (XEB685) ( 05 AUG 75 )

## REFERENCE DATA

SPREF = 2690.0000 SQ.FT. XMRP = 1076.6800 IN. XO  
 LREF = 474.6000 IN. YMRP = .0000 IN. YO  
 BREF = 936.0680 IN. ZMRP = 375.0000 IN. ZO  
 SCALE = .0300

ALPHA ( 1 ) = -3.903 BETA ( 1 ) = .164 MACH = .59520 Q = 593.85 P = 2386.4 RN/L = 4.8166

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3710 -.2580  
 40.000 -.2886 -.2020

ALPHA ( 2 ) = .072 BETA ( 1 ) = .163 MACH = .59620 Q = 593.87 P = 2387.1 RN/L = 4.8288

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3769 -.2622  
 40.000 -.2965 -.2008

ALPHA ( 3 ) = 4.077 BETA ( 1 ) = .160 MACH = .59680 Q = 595.04 P = 2386.4 RN/L = 4.8327

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3900 -.2623  
 40.000 -.3004 -.1961

ALPHA ( 4 ) = 8.047 BETA ( 1 ) = .158 MACH = .59710 Q = 595.63 P = 2386.4 RN/L = 4.8284

## SECTION ( 1 ) BODY FLAP LOWER

## DEPENDENT VARIABLE CP

X/LB 1.0180 1.0460

PHI

.000 -.3853 -.2535  
 40.000 -.2917 -.1959

## PARAMETRIC DATA

RUDDER = 10.000 SPDBRK = .000  
 BDFLAP = -11.700 L-ELVN = -10.000  
 R-ELVN = 10.000 MACH = .600

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TABULATED PRESSURE DATA - 0A148 ( AMES 11-073-1 )

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AMES 11-073(0A148) -140A/B/C ORB BODY FLAP LWR (XE8385)

ALPHA ( 5 ) = 12.046 BETA ( 1 ) = .156 MACH = .59710 Q = 595.63 P = 2386.4 RN/L = 4.9340

SECTION ( 1 ) BODY FLAP LOWER

DEPENDENT VARIABLE CP

X/LB 1.0160 1.0460

PHI

.000 -.3729 -.2408  
40.000 -.2709 -.1664